



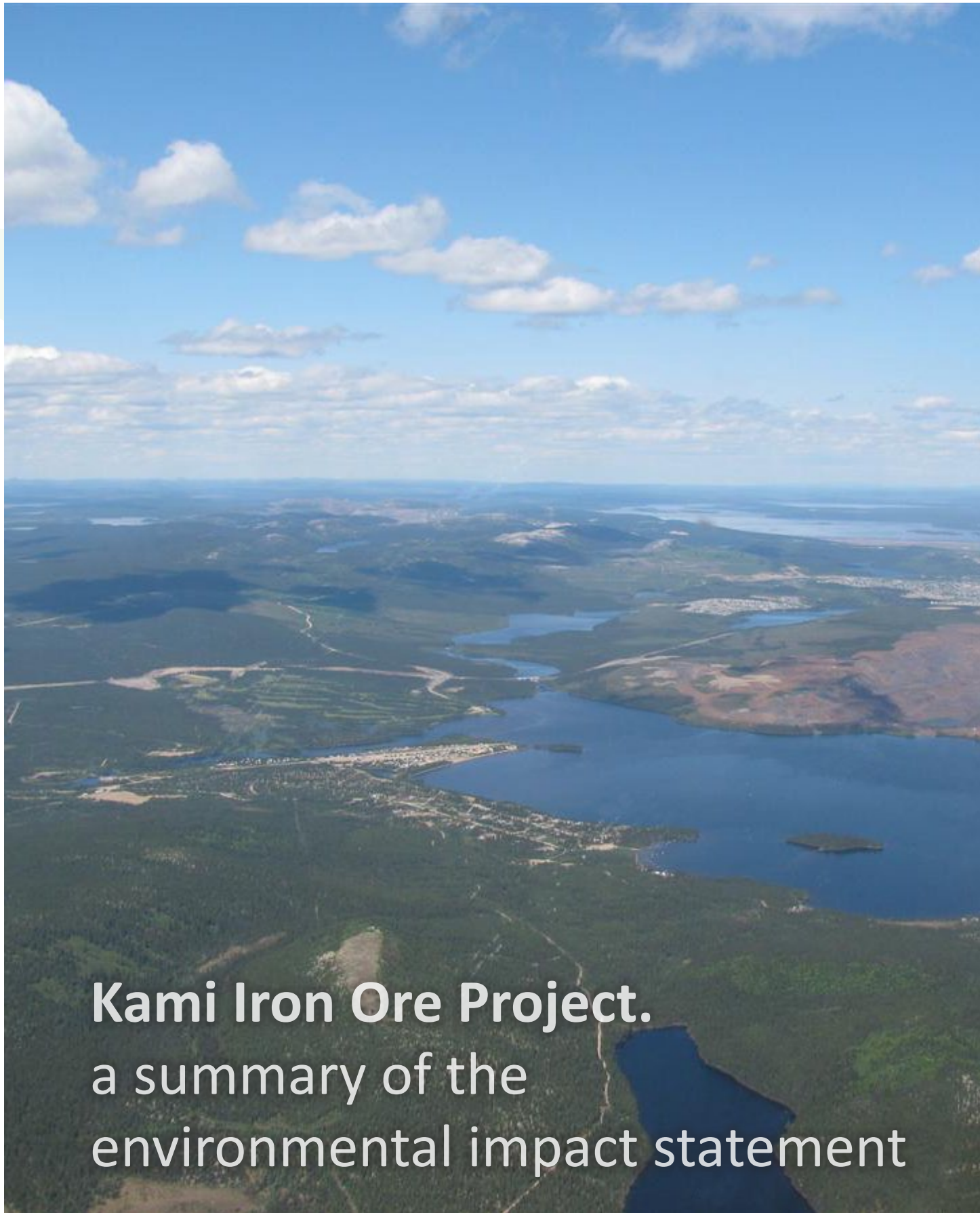
ALDERON
IRON ORE CORP

KAMI IRON ORE MINE & RAIL INFRASTRUCTURE, Labrador

**Kami Iron Ore Project
Environmental Impact Statement**

PLAIN LANGUAGE SUMMARY

September 2012



Kami Iron Ore Project. a summary of the environmental impact statement



Foreword

This document is intended to be a non-technical summary of the Environmental Impact Statement (EIS) for the Kami Iron Ore Project proposed by Alderon Iron Ore Corp located in western Labrador. The purpose of this document is to provide an overview of key findings of the EIS with respect to potential Project-related environmental effects as well as commitments to managing those effects to acceptable levels over the life of the Project. This document is intended to support Aboriginal engagement and public consultation and is available in English and French. Readers are encouraged to review the full EIS document for additional details on the assessment.

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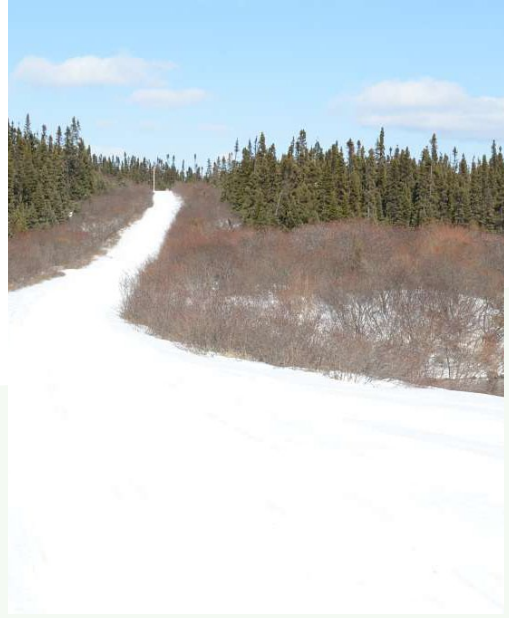


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1.0 INTRODUCTION

Alderon Iron Ore Corp. (Alderon) is proposing to develop and operate an iron ore mine on the Kamistatusset (Kami) Property in western Labrador, which will have a nominal capacity of 16 million metric tonnes of iron ore concentrate each year that will be transported by existing rail lines to the Pointe-Noire Terminal at the Port of Sept-Îles, Québec.

Alderon is committed to taking a responsible approach to social, economic and environmental performance that is consistent with the priorities of our stakeholders. Alderon's goal is to build and maintain positive and long term relationships with stakeholders of the proposed Kami Project.

Alderon is committed to building relationships, based on mutual trust and respect and collaborating with Aboriginal groups that may be affected by the Project and that have asserted or established Aboriginal rights, Aboriginal title or treaty rights or whose traditional land and resource use activities in the Project area may be affected by the Kami Project.

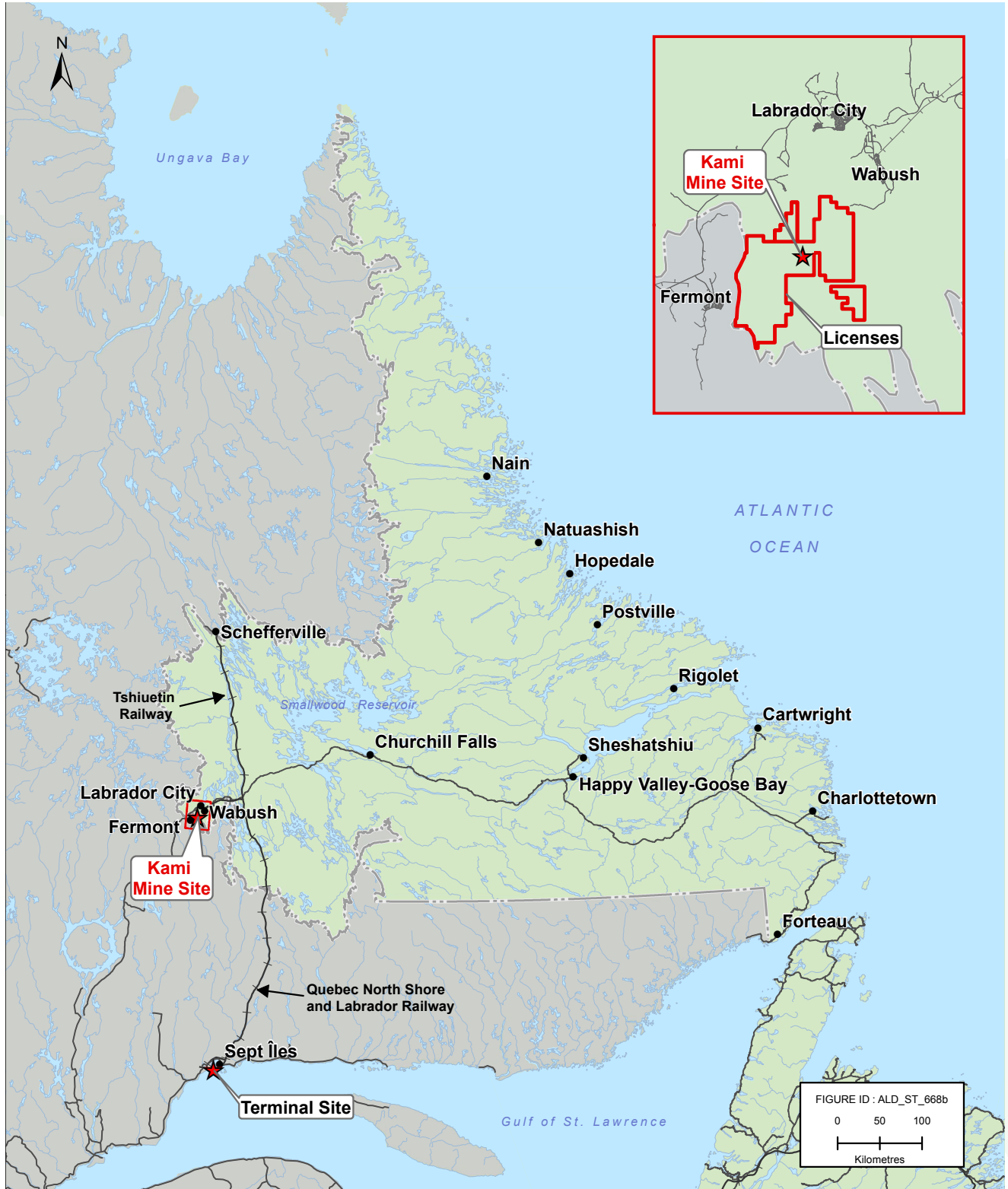
This document describes the environmental effects of the proposed Kami mine and associated components located in western Labrador. A separate summary document has been prepared to describe Alderon's proposed facilities in Québec.

1.1 Project Overview

Alderon is proposing to develop an iron ore mine on the Kamistatusset (Kami) Property located in western Labrador. The mine property is located south of the towns of Wabush and Labrador City in Newfoundland and Labrador and east of Fermont, Québec. The Kami Iron Ore Mine and Rail is located entirely within Labrador. The Project includes construction, operation, and eventual closure and reclamation of an open pit, waste rock disposal areas, processing infrastructure, a tailings management facility and effluent treatment infrastructure, supporting infrastructure and a rail transportation component. Iron ore concentrate will be transported by existing rail to the Pointe-Noire Terminal at the Port of Sept-Îles. Project components within the Port of Sept-Îles are addressed in a separate EIS and associated summary document.

Alderon's goal is to build and maintain positive and long term relationships with stakeholders of the proposed Kami Project.

Figure: Kami Iron Ore Project General Location



1.2 Environmental Assessment Process

1.2.1 Purpose of the EIS

The submission of the Environmental Impact Statement (EIS) is an important step in the environmental assessment review process. The EIS is a careful and detailed consideration of how the Project could affect the residents, communities, and natural environment surrounding the Kami Project site. The EIS addresses the issues raised by regulators, the public and Aboriginal through Alderon’s public consultation process. The EIS will be reviewed by the EA Committee, including subject area experts from government departments and regulatory agencies, and is available for public review. Review comments of the EA Committee and the public will be considered when a determination of the environmental implications of the Project is made by the federal and provincial governments.

The EIS consists of a *Plain Language Summary*, an *Executive Summary*, *Volume 1* (Kami Iron Ore Mine and Rail Infrastructure Project) and *Volume 2* (Kami Concentrate Storage and Load-out Facility).

An environmental assessment is a decision-making tool used to promote sustainable development by evaluating the potential environmental effects of major developments before they are constructed. This process involves various government agencies as well as public, stakeholder and Aboriginal consultation and engagement.

1.2.2 Federal Requirements

Federal approvals will be required from:

- Fisheries and Oceans Canada (DFO) (*Fisheries Act*);
- Transport Canada (*Navigable Waters Protection Act*);
- Natural Resources Canada (*Explosives Act*); and
- Canadian Transportation Agency (*Canada Transportation Act*).

Under CEAA, a “comprehensive study” level of assessment will be required since the Kami mine will have an “iron ore capacity of 3,000 t/d or more”.

1.2.3 Provincial Requirements

The mine site is located entirely within Labrador and any mining of a mineral defined in the *Mineral Act* in Newfoundland and Labrador is subject to environmental assessment registration under the province's *Environmental Protection Act* and *Environmental Assessment Regulations*.

1.2.4 Cooperative EA Process

This Project will require approvals from provincial and federal governments, including environmental assessment approval under the Newfoundland and Labrador *Environmental Protection Act* and federal *Canadian Environmental Assessment Act* (CEAA). Both governments are working together to use one environmental assessment to satisfy their respective regulatory requirements. An environmental assessment is a decision-making tool used to promote sustainable development by evaluating the potential environmental effects of major developments before they are constructed. This process involves various government agencies as well as public, stakeholder and Aboriginal consultation and engagement.

The mining and mineral processing industry is an important part of the Newfoundland and Labrador economy, and one which has been identified as having great potential for future growth.



2.0 PROJECT DESCRIPTION

2.1 Purpose of and Need for the Project

The purpose of the Project is to develop the iron ore deposits within the Kami Mine Property in Labrador to produce iron ore concentrate for sale to international markets. There is currently a very high level of demand for iron ore and steel worldwide, which is creating and maintaining relatively strong markets and good prices for iron and steel.

The mining and mineral processing industry is an important part of the Newfoundland and Labrador economy, and one which has been identified as having great potential for future growth. The future growth of the province's mining industry has also been identified as a key priority area of focus.

This Project is an important element of this future strategic direction, and will contribute strongly to the on-going capability and future growth of the province's mining industry. Additionally, the Project will have significant economic benefits during the construction and operation by creating employment opportunities as well as opportunities for businesses that supply goods and services.

2.2 Project Description

2.2.1 Location

The proposed Kami mine site is located wholly within Labrador approximately 6 km south from the Wabush Mines mining lease and in the vicinity of the towns of Wabush, Labrador City and Fermont.

2.2.2 Components

The Project will include the construction, operation and eventual closure and reclamation of the following key elements:

- Open Pit Mine (Rose Pit);
- Site Buildings;
- Waste Rock Disposal Areas (Rose North and Rose South Disposal Areas);
- Tailings Management Facility;
- Effluent Treatment Infrastructure;
- Access Roads;
- Power / Transmission Lines;
- Rail Infrastructure;
- Other Supporting Infrastructure and Equipment.

Open Pit Mine

The proposed Project will include an open pit mine (Rose Pit), which will be located just south of Pike Lake, and approximately 8 km south of the communities of Wabush and Labrador City in western Labrador (as shown on Project Components map). The surface area of the pit footprint will be approximately 280 ha, with an overall perimeter of 8.6 km. The approximate pit depth will be 450 m.

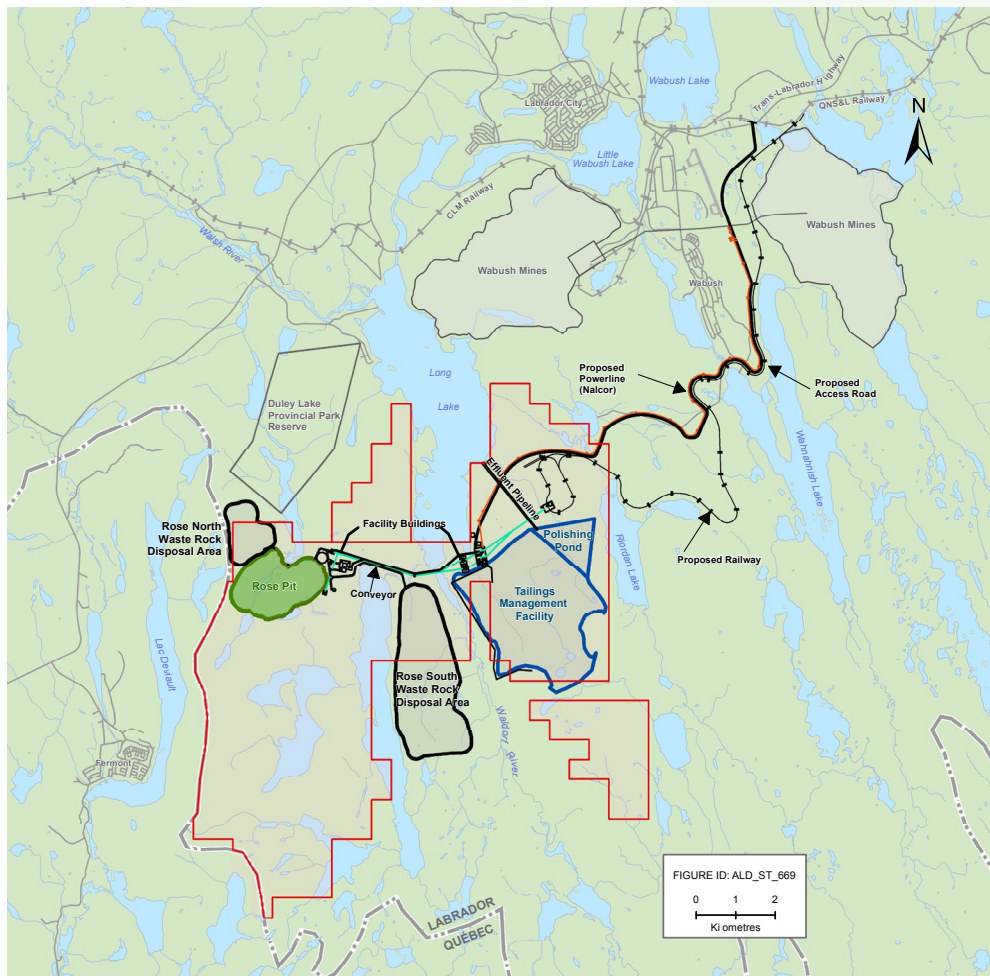
Mineral Processing Infrastructure and Site Buildings

The proposed Project components at the mine site in Labrador will include mining and processing facilities, and various other site and supporting infrastructure, which will be located in two adjacent complexes at the mine site (as shown on Project Components map). The ore will be processed using grinding and magnetic separation. To meet the nominal production of 16 million tonnes of iron concentrate per year, a total of 42.4 million tonnes annually of crushed ore must be fed to the grinding circuit.

Key processing components and facilities will include:

- Primary Crushers (above ground and underground);
- Crushed Ore Stockpile;
- Process Plant;
- Concentrator Service Buildings.

Project Components



Waste Rock Disposal Areas

The development of the open pit is expected to generate approximately 1,232 million tonnes (Mt) of waste over the life of the mine. A total of approximately 660 million cubic meters of waste storage capacity will be required on the site.

To store the waste rock and overburden produced by the development of the Kami deposit, conventional surface disposal areas are proposed near the Rose Pit, which are referred to as the Rose North and Rose South Waste Rock Disposal Areas. The Rose North Disposal Area will be located immediately to the northwest of the Rose Pit, and covers an area of approximately 136 ha (as shown on Project Components map). The Rose South Disposal Area is located to the south of the access road and conveyor that connects the mine and crusher with the processing facility, and is situated between Mills Lake and the Waldorf River, covering an area of approximately 595 ha.

Tailings Management Facility

Tailings are the waste materials that are left over after the process of separating the valuable minerals from the unusable and uneconomic rock components. Tailings are different than overburden or waste rock which are the materials overlying an ore or mineral body that are displaced during mining without being processed.

The tailings will be dewatered at the processing plant using dewatering cyclones for dewatering coarse tailings and thickeners for dewatering dry tailings. Tailings dewatering at the processing plant reduces pumping requirements and improves water management by keeping water within the concentrator process water circuit.

These tailings will be disposed of at a proposed Tailings Management Facility located in the south-eastern portion of the Project area (as shown on Project Components map). Excess water in the Tailings Management Facility will be sent to a polishing pond. Water in the polishing pond will be treated to meet discharge criteria, set by the federal *Metal Mining Effluent Regulations* and provincial *Environmental Control Water and Sewage Regulations*, and to reduce potential for red water prior to being discharged into Long Lake. “Red water” is the term used for water which contains fine particles of iron oxide / hydroxide.

The proposed location of the Tailings Management Facility was selected with consideration of the amount of land required and available, favourable topographical features and in an attempt to avoid or minimize effects on wetlands, waterbodies and other environmentally sensitive areas.

Effluent Treatment Infrastructure

Effluent from the Tailings Management Facility will be treated prior to discharge to the receiving environment in order to achieve compliance with the Federal *Metal Mining Effluent Regulations* and the Provincial *Environmental Control Water and Sewage Regulations*. This will include treatment for red water.

Access Roads

Several access roads will be built including:

- A new access road that will extend south from the Trans Labrador Highway to the Project area;
- Roads throughout the Project site for service and

- maintenance vehicles and general access;
- Access roads to the fuel unloading area, the Tailings Management Facility and tailings pumping system, raw water pumphouse, load-out silo and concentrate conveyor system and the explosives magazine;
- Mining roads, designed specifically for the hauling of ore and waste from the open pit, including the roads within the pit as well as the roads required to support mining operations;
- Roads within the open pit which will be defined in more detail as the mine plan is developed.

Power / Transmission Lines

Several options are being considered to provide the electrical power required during the construction phase of the Project.

Alderon has discussed its construction power requirements with Nalcor Energy, who will either construct, own and operate a new 46 kV distribution line to the site or provide power by bringing in diesel generators as required. This option would likely involve two 1,200 kW diesel generating units for construction at the concentrator area, one 800 kW generator at the crusher area, and one 800 kW generator located at the site of the mine garage and offices.

Rail Infrastructure

The Québec North Shore & Labrador (QNS&L) railway extends for approximately 420 km from Labrador West to the Port of Sept-Îles, Québec (as shown on Project Components map).

A new railway line will be established to connect the mine site to the existing QNS&L railway network, for a total length of approximately 24 km. The line will consist of newly constructed (single) track extending south from the existing railway, past the eastern boundary of the Town of Wabush and then generally west to the mine site. The main track alignment has been designed to match the existing design parameters of the QNS&L to provide technical and operational uniformity.

A section of loop track will also be constructed in the ore loading area to allow continuous slow motion loading of trains and to permit trains to turn around without detaching locomotives and carrying out switching activities.

Other Supporting Infrastructure and Equipment

Other supporting infrastructure and equipment will be required for general mining and processing operations.

Key infrastructure and equipment will include:

- Crushed Ore Stockpiles and Reclaim System;
- Conveyor Systems;
- Concentrate Load-out Silo;
- Tailings Pipeline;
- Reclaim Water Pumphouse;
- Runoff Water Retention Basins and Mine Water Retention Basin;
- Gate and Guardhouse;
- Administration and Maintenance Offices;
- Mine Service Building Warehouse and Employee Facilities;
- Pumphouse;
- Site Communication Tower;
- Explosives Magazine.

2.2.5 Labour Force Requirements

The construction of the Project will result in approximately 5 million person-hours of employment. The first phase of construction is expected to occur between approximately late 2013 and 2015 and will see nearly 3 million person-hours of employment. The majority of these hours will be executed on site during the construction period.

The operations phase of the Project will commence upon completion of construction and associated commissioning, and is expected to extend from approximately 2015 (pre-production) to 2033, with one production line operational from 2016 to 2018, and two in place from 2019 to 2033.

During the pre-production period (2015), an estimated 259 employees will comprise the Project operational workforce, which will increase to approximately 429 workers in Year 1 of operations and then to approximately 497 during the initial four year operating period involving one production line. With two production lines in operation (2019 to 2033), the operational workforce will rise to up to 817 persons, decreasing somewhat through subsequent and final years of production.



3.0 SCOPE OF THE ASSESSMENT

3.1 Scope of the Project

The scope of the Project for the purpose of the environmental assessment includes all activities and physical works associated with construction, operation, rehabilitation and closure of the proposed Project.

3.2 Factors to be Considered

The following factors have been considered as a part of the environmental assessment:

- The need for the Project;
- Alternatives to the Project;
- The purpose of the Project;
- Alternative means of carrying out the Project that are technically and economically feasible and the environmental effects of any such alternative means;
- The environmental effects of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project and any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or shall be carried out;
- The significance of the environmental effects referenced above;
- Comments arising from the public and Aboriginal consultation and engagement;
- Local knowledge and Aboriginal traditional knowledge;
- Measures that are technically and economically feasible and that would mitigate (lessen) any significant adverse environmental effects of the Project;
- The requirements of a follow-up program for the Project;
- The capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of the present and those of the future.

3.3 Scope of the Factors

The assessment of environmental effects focuses on Valued Ecosystem Components (VECs). A VEC is a component or attribute that is important for its ecological, legal, scientific, cultural, economic or aesthetic values.

VEC specific factors are discussed in *Section 7*.

3.3.1 Identification of VECs

A total of 13 VECs were identified in the EIS Guidelines for review as a result of government, Aboriginal persons, stakeholders and general public interests and concerns. Each VEC is discussed in detail in *Section 7*.

Natural environment VECs are:

- **Atmospheric Environment** (air quality, climate, vibration and noise);
- **Landforms, Soils, Snow and Ice** (landforms, terrain stability, soil quality and quantity, snow and ice as well as the potential for Acid Rock Drainage (ARD) and metal leaching);
- **Water Resources** (quality and quantity of groundwater and surface water resources);
- **Wetlands** (lands having the water table at, near, or above ground surface, or are saturated long enough to promote wetland aquatic processes);
- **Freshwater Fish, Fish Habitat, and Fisheries** (freshwater fish species and the habitat upon which they depend and fisheries activities);
- **Birds, Other Wildlife and their Habitats,**

A VEC is a component or attribute that is important for its ecological, legal, scientific, cultural, economic or aesthetic values.



and Protected Areas (migratory and non-migratory species that are potentially feeding, breeding, moving and/or migrating through the Project area, their habitat, and Protected Areas);

- **Species at Risk and Species of Conservation Concern** (species of plant or animal, and/or its critical habitat, that is of provincial, national or international importance, particularly where the species and/or its critical habitat is protected under federal or provincial legislation).

Human environment VECs are:

- **Historic and Cultural Resources** (archaeological sites, paleontological fossil sites, cultural or spiritual sites and historic buildings and properties);
- **Current Use of Land and Resources for Traditional Purposes by Aboriginal Persons** (lands and resources of specific social, cultural or spiritual value to the Aboriginal persons that are currently used for traditional purposes);
- **Other Current Use of Lands and Resources** (other industrial, residential or commercial uses of the land);
- **Community Services and Infrastructure** (employment, transportation, social, education and health services, safety and security, and housing and accommodation);
- **Health and Community Health** (human health and wellness and family life);
- **Economy, Employment, and Business** (new economic activity, workers and local businesses).

3.3.2 Spatial and Temporal Boundaries

Spatial and temporal boundaries are the study areas and time frames used to investigate potential environmental effects of the Kami iron ore mine and rail infrastructure.

Spatial boundaries are also known as the study area. The spatial boundaries consider the geographic extent over which the Project's environmental effects may occur, recognizing that some environmental effects may extend beyond the Project Development Area. Spatial boundaries differ by VEC depending on the nature of predicted effects.

Temporal boundaries consider timing and scheduling of Project activities, and the time required for recovery from an environmental effect. In general, temporal boundaries for assessment include the construction, operation and maintenance and decommissioning and reclamation phases of the Project. For most of the VECs, the temporal boundaries for each Project phase consider a construction period of approximately two years, operation and maintenance for approximately 17 years, and decommissioning / reclamation approximately one year after operations cease.

4.0 PROJECT ALTERNATIVES

The EIS Guidelines require consideration of alternatives to the Project and alternative means of carrying out the Project that are technically and economically feasible.

4.1 Alternatives to the Project

The need for and purpose of this Project is to develop the iron ore deposits within the Kami Property and to produce iron ore concentrate suitable for sale to international markets.

Addressing the overall, worldwide requirement for iron ore could potentially be addressed through other development projects or initiatives, which may also provide associated economic benefits to the regions and jurisdictions in which they are developed. With the exception of this proposed Project, however, no other such alternatives are within the ability and responsibility of Alderon. The only alternative to Alderon's construction and operation of the Kami Project is a decision to not proceed with this development – the “no-go” decision.

The proposed Project provides a technically feasible, economically viable and attractive, and environmentally and socially responsible means of addressing the identified need for and purpose of the development and one which can and will be planned and implemented in a manner that avoids or reduces potential adverse environmental effects and optimizes socio-economic benefits.

4.2 Alternative Means of Carrying out the Project

Description of Alternative Means

The environmental assessment process allows for the identification, analysis and evaluation of different potential project concepts and approach options, in order to include environmental considerations into project planning at an early stage and potentially influence Project design. The EIS considers possible alternative means of carrying out the Project that are technically and economically feasible (shown in table below).

Technical and Economic Feasibility of Alternative Means of Carrying out the Project

Project Component	Alternative Considered	Economic & Technical Feasibility	Preferred Option
Tailings Management	Option 1: tailings disposal in open pit	<ul style="list-style-type: none"> To be investigated at a later date at a later stage of the project, after the open pit has been established 	
	Option 2: tailings disposal in natural waterbodies	<ul style="list-style-type: none"> Not considered to be feasible or environmentally acceptable 	
	Option 3: conventional tailings storage in an engineered impoundment	<ul style="list-style-type: none"> Technically and economically feasible, using effective and proven technology 	✓
	Option 4: dry stacking of dewatered tailings	<ul style="list-style-type: none"> Environmental issue associated with dust generation 	
	Option 5: co-disposal of tailing and waste rock	<ul style="list-style-type: none"> Based on technical / operational aspects, environmental issues, socioeconomic issues and economic implications, this option was not considered acceptable based on the physical site constraints and volume of tailings produced at a substantial distance from the pit area 	
Waste Rock Storage (management and location)	Option 1: co-disposal of tailings and waste rock	<ul style="list-style-type: none"> The locations of Rose North and Rose South waste rock disposal areas were selected with consideration of ensuring adequate space and topography, as well as based on environmental issues and input received by Alderon throughout its consultation processes 	✓
	Option 2: disposal in natural waterbodies	<ul style="list-style-type: none"> Not considered to be an environmentally acceptable option 	
	Option 3: utilizing waste rock as construction aggregate	<ul style="list-style-type: none"> Further testing of waste rock must be completed to determine feasibility of using this material as construction aggregate 	
Transportation (including alternative rail routes)	Option 1: railway	<ul style="list-style-type: none"> Economically and technically feasible 	✓
	Option 2: pipeline	<ul style="list-style-type: none"> Require high initial capital cost for construction when compared to rail transport Additional power required to operate the pumping systems necessary to keep the line operational Difficult ground conditions for pipeline construction and operation presents technical challenges 	
	Option 3: roadway	<ul style="list-style-type: none"> The existing route is inadequate (single lane each way, partially paved, route is indirect) and would lead to financially prohibitive operating costs for the Project 	
Power Supply	Option 1: new 46 kV distribution line bringing power directly to the plant main substation	<ul style="list-style-type: none"> Preferred option for economic reasons Preferred option for environmental reasons (due to the air emissions associated with diesel generating units) 	✓
	Option 2: power provided by diesel generators	<ul style="list-style-type: none"> Not preferred due to environmental concerns associated with air emissions that would be associated with the diesel generating units 	
Mining Methods	Option 1: open pit mining	<ul style="list-style-type: none"> Used extensively in similar iron ore mining and other operations in Labrador and elsewhere Proven to be effective and viable process for use in such operations 	✓
	Option 2: underground mining	<ul style="list-style-type: none"> Not considered to be an economically feasible alternative 	

Selection of a Preferred Alternative Means

The selected Project components, noted above, were identified as the preferred technically and economically preferred option with the least potential for effects to the environment from Project activities. The environmental effects of the preferred options are assessed in the EIS.



5.0 CONSULTATION

5.1 Public and Aboriginal Consultation and Engagement Activities undertaken for the EA

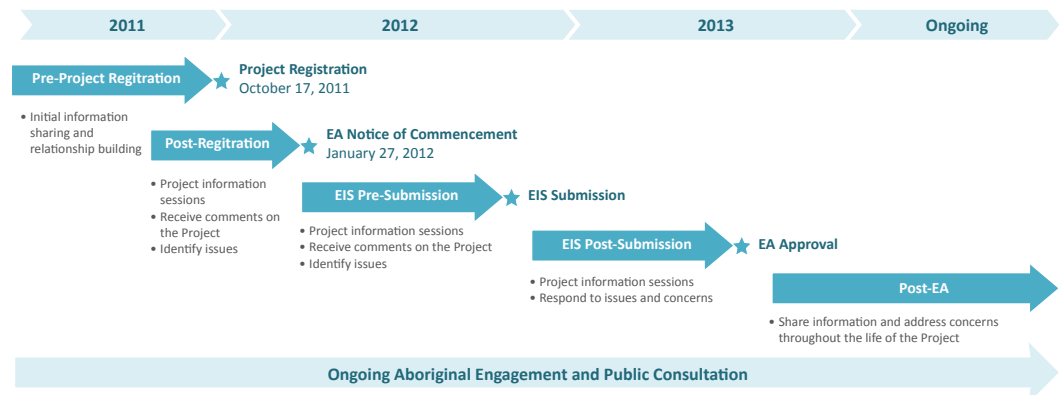
Since the acquisition of the Kami Property in December 2010, Alderon has worked to establish open and transparent communication with various potentially interested or affected individuals and organizations. Alderon’s approach includes engagement with Aboriginal groups, public stakeholders and regulatory agencies. The objectives of this consultation and engagement program were identified in accordance with the EIS Guidelines (CEA Agency and DOEC 2012), the *Newfoundland and Labrador Environmental Protection Act* (NLEPA), and the *Canadian Environmental Assessment Act* (CEAA).

The overall objectives of the consultation and engagement program are to:

- Provide Project information and updates on a regular basis;
- Engage Aboriginal groups and stakeholders throughout the environmental assessment (EA) process and during the life of the Project;
- Identify issues of concern with the Project early in the process;
- Adapt the Project design, where possible, to avoid and mitigate adverse environmental effects; and
- Demonstrate how issues and concerns raised during engagement activities have been addressed in the EIS.

Alderon’s consultation and engagement program for the EA includes five phases shown below in an overview of the EA timeline, including associated consultation and engagement phases and program milestones.

Timeline for Consultation and Engagement Program



Public and Regulatory Consultation Activities

Public stakeholders engaged by Alderon include residents of the towns of Labrador City, Wabush, Fermont and Sept-Îles. In addition to these stakeholders, Alderon has also engaged other potentially affected and/or interested stakeholders including provincial and federal government agencies and departments, non-governmental organizations, economic development organizations, and outdoor recreation users and outfitters

Public consultation activities include information sharing, general consultation with community members, and key stakeholder meetings. In particular:

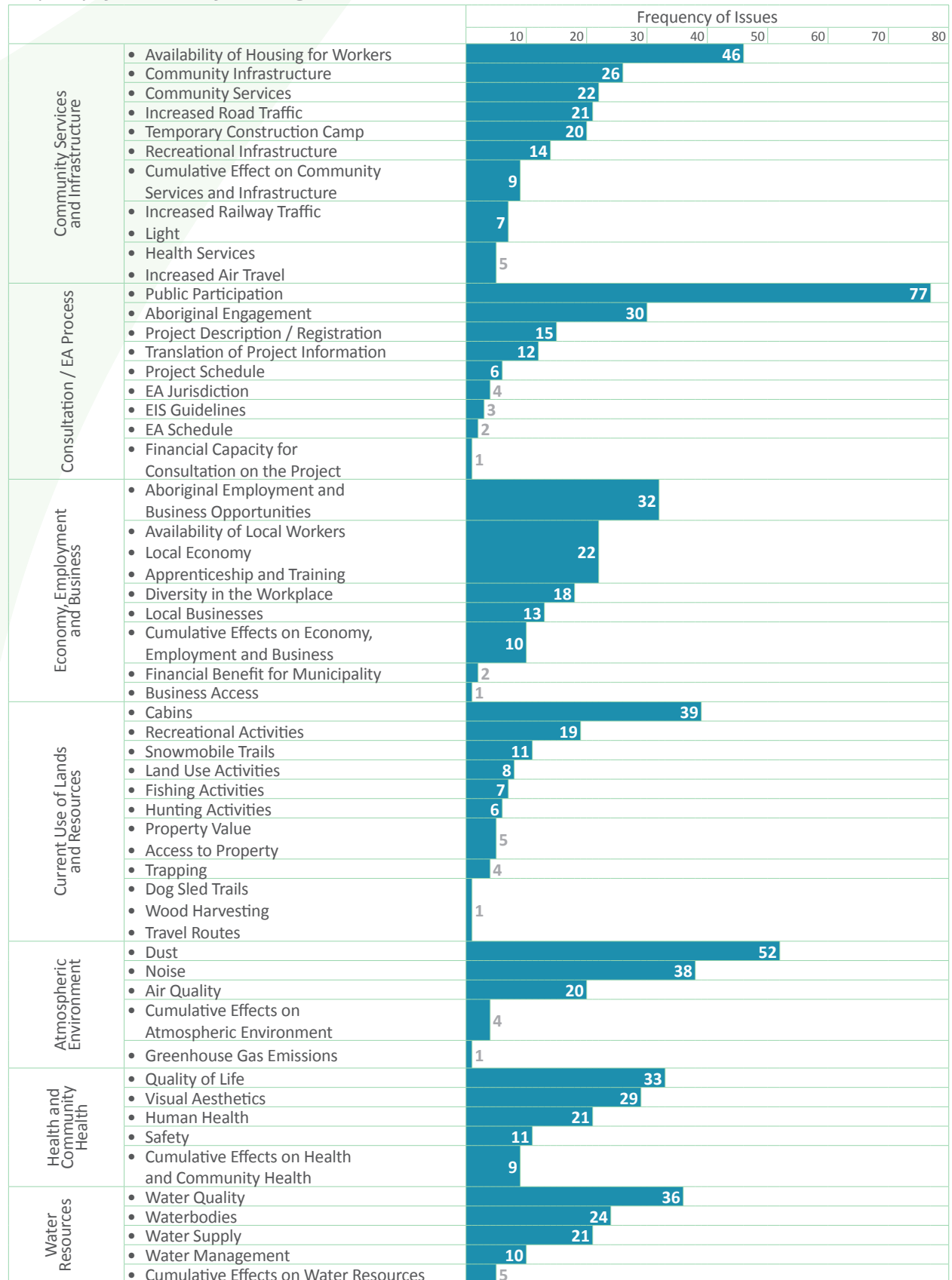
- Public notices were created to share information with the general public and those potentially affected by the Project;
- A Project website was created to provide Project information, EA documentation, notifications, and consultation materials and provided an area for stakeholders to submit contact information and comments;
- Public Information Sessions were held to provide information to the general public and other interested stakeholders and receive feedback;
- Key stakeholder meetings were held to inform key stakeholders on Project design and EIS studies, and identify issues with the Project to be included in the EIS.

Consultation with federal and provincial regulatory agencies is an important component of EIS development. Alderon's approach to regulatory consultation is to establish and maintain transparent dialogue with federal and provincial regulators throughout development of the EIS. Consultation activities include ongoing information updates and meetings, including sharing stakeholder and Aboriginal issues as they arise. In addition, Alderon met with reviewing agencies during the development of the EIS to present baseline studies, study methodology and effects assessment for each component chapter. This approach is aimed at informing reviewers, and obtaining feedback early in the process.

Issues identified most frequently during public and regulatory consultation include:

- Public participation;
- Potential effects from dust;
- Potential effects on cabins;
- Potential noise effects;
- The availability of housing for workers.

Frequency of Issues Identified During Public Consultation Activities



Frequency of Issues Identified During Public Consultation Activities (cont'd)

		Frequency of Issues						
		10	20	30	40	50	60	70
Project Design and Location	• Location of Tailings Impoundment	18						
	• Location of Rail	16						
	• Availability of Power	12						
	• Economic Feasibility	9						
	• Location of Waste Rock Piles	8						
	• Location of Access Road	8						
	• Location of Transmission Line	4						
	• Secondary Processing of Iron Ore	3						
	• Accidents and Malfunctions	2						
	• Location of Concentrate Storage Facility	1						
Current Use of Lands and Resources by Aboriginal Persons for Traditional Purposes	• Interaction with Existing Aboriginal Rights or Title	21						
	• Traditional Land Use Activities by Aboriginal	18						
	• Cumulative Effects on Use of Lands and Resources for Traditional Purposes by Aboriginal Persons	3						
Birds, Other Wildlife and Their Habitat, and Protected Areas	• Wildlife Species	22						
	• Parks and Protected Areas	6						
	• Waterfowl	4						
	• Wildlife Habitat	3						
Project Phases	• Post Closure	9						
	• Engineering and Project Design	8						
	• Exploration	6						
	• Monitoring and Follow-up	4						
	• Mining Operations	4						
	• Construction	1						
Wetlands	• Effects on Wetland Stewardship Areas	16						
	• Wetlands	8						
Freshwater Fish, Fish Habitat and Fisheries	• Fish Habitat	12						
	• Cumulative Effects on Fish and Fish Habitat	2						
	• Fish Population	3						
Landforms, Soils, Snow and Ice	• Reclamation & Rehabilitation	8						
	• Cumulative Effects On Landforms, Soil, Snow And Ice	2						
	• Snow and Ice	1						
	• Acid Rock Drainage	1						
Species at Risk and Species of Conservation Concern	• Caribou	6						
	• Cumulative Effects on Species at Risk	1						
	• Species at Risk	1						
Historic and Cultural Resources	• Archaeological Sites	5						
	• Burial Sites	1						

Aboriginal Engagement Activities

Alderon recognizes the importance of building relationships based on mutual trust and respect with Aboriginal groups which may be affected by the Project in order to achieve mutually beneficial outcomes. Alderon is committed to ensuring that potentially affected Aboriginal groups and communities are appropriately engaged so that Alderon can identify, understand and address any potential adverse effects of the Project on those groups and communities and their current use of land and resources for traditional purposes.

Alderon's approach to engagement with Aboriginal groups is guided by its *Aboriginal Relations Policy*. Pursuant to the *Aboriginal Relations Policy*, Alderon will:

- Acknowledge potential or established aboriginal or treaty rights and comply with the requirements of any applicable treaties, laws, regulatory measures and governmental policies;
- Provide opportunities for aboriginal groups to share traditional knowledge and information on traditional land and resource use in the project area;
- Develop an effective, respectful and meaningful engagement process; and
- Work cooperatively and collaboratively with aboriginal groups to identify Project effects and develop and implement appropriate mitigation measures, including, where appropriate, the negotiation of agreements to address adverse effects and provide access to benefits.

Alderon has engaged with those Aboriginal groups and communities who have treaty rights or recognized or asserted Aboriginal rights or Aboriginal title (collectively referred to as "Aboriginal Interests") and who may be affected by the Project. In order to determine the existence of such Aboriginal Interests, Alderon has reviewed a broad range of information in order to gain a general understanding of the nature of known Aboriginal Interests in the Project and to identify the aboriginal groups and communities which will be engaged by Alderon.

Alderon has identified five Aboriginal groups with Aboriginal Interests which may be affected by the Project. These groups which form the participant list for Alderon's Aboriginal engagement program are:

- Innu Nation;
- NunatuKavut Community Council;
- Uashat mak Mani-Utenam;
- Matimekush-Lac John; and
- Naskapi Nation of Kawawachikamach.

Alderon has made significant efforts to engage with each of these Aboriginal groups. These efforts are based on Alderon's *Aboriginal Engagement Strategy and Action Plan* which establishes the framework for a coordinated and comprehensive engagement process which is consistent with the requirements of any applicable treaties, laws, regulatory measures and governmental policies, including the EIS Guidelines. The engagement process commenced prior to Project registration and will continue throughout the life of the Project until closure and decommissioning.

These engagement efforts consist of four main initiatives:

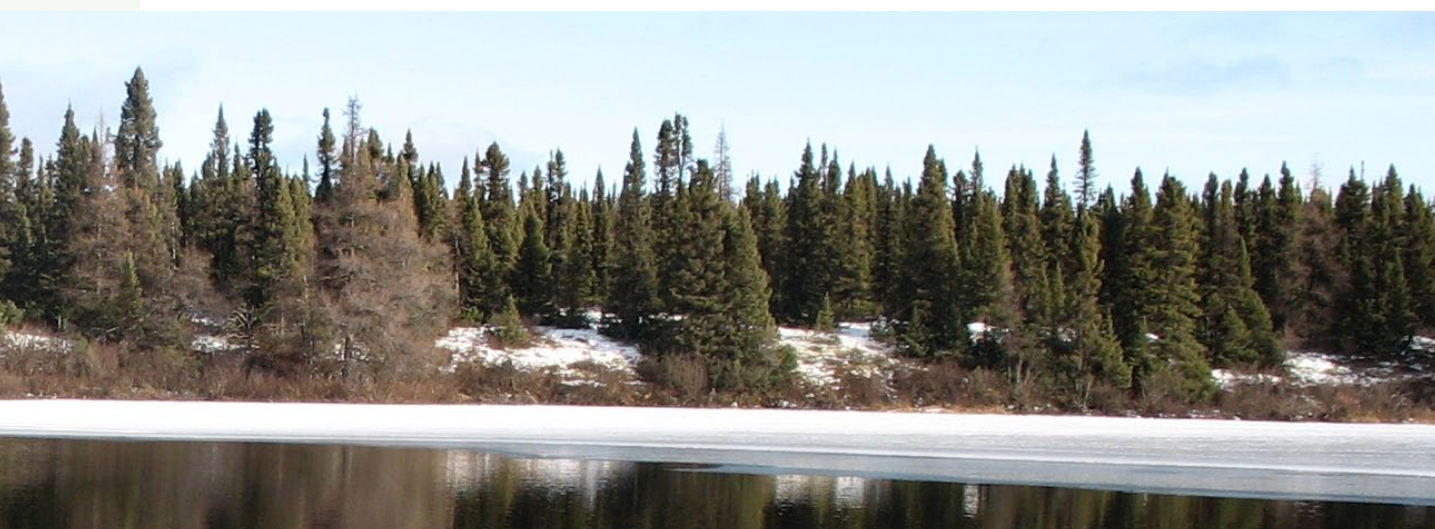
- **Information Sharing:** Alderon has provided each Aboriginal group with a wide range of Project-related information for review and comment, including the Project registration, explanatory brochures, corporate policies and permit applications, translated as appropriate, and has offered to meet with each group to discuss this information and to provide Project updates. This information has also been made available on Alderon's website. Alderon will continue to provide clear, user-friendly and relevant Project-related information to each Aboriginal group on a timely and ongoing basis through the life of the Project to enable the ongoing identification of issues and concerns.
- **Community Engagement:** Alderon has met with the leadership of each Aboriginal group to discuss the Project, environmental assessment and the engagement process in order to determine the best means of transmitting Project-information and identifying issues and concerns. Alderon has also made repeated efforts to meet with community members to discuss the Project. As part of community engagement, Alderon has assessed the capacity of each Aboriginal group to participate meaningfully in engagement and where appropriate, has offered to enter into formal engagement arrangements, supported by capacity funding and technical expertise. Alderon has made and will continue to make regular offers to meet with both leadership and the community in order to provide multiple opportunities to each Aboriginal group and community to understand the Project and identify its potential effects upon Aboriginal interests.
- **Traditional land and resource use studies:** Alderon has offered to provide funding and technical resources to each Aboriginal group to conduct traditional land and resource use studies and collect traditional knowledge through participant interviews and the mapping of relevant land and resource uses. Where agreements have been concluded, the results of such studies have been used to augment Alderon's understanding of Project effects upon traditional activities. Alderon has also offered to engage directly with those members of aboriginal communities who may be particularly affected by the Project.



- **Mitigation and Avoidance:** Alderon will provide opportunities to Aboriginal groups to be consulted on the development of mitigation or avoidance measures where, as a result of information generated through engagement, it is determined that the Project is likely to have adverse effects upon Aboriginal Interests or otherwise adversely affect traditional land and resource use. Such mitigation or avoidance measures may include environmental monitoring, land and cultural protection measures and the negotiation of benefits agreements. Alderon will incorporate information gained during engagement into Project planning and execution and will adapt plans as necessary to take into account the views of Aboriginal groups and communities.

Alderon's engagement efforts have enabled the various Aboriginal groups to identify issues of particular concern. Issues most frequently identified by Aboriginal groups through engagement are:

- Aboriginal employment and business opportunities;
- Aboriginal engagement;
- Potential interaction with existing Aboriginal rights or title;
- Potential Effects of the Project on traditional land use activities; and
- Potential effects of the Project on Wildlife.



Frequency of Issues Identified During Aboriginal Engagement Activities

		Number of Times Issue was Raised				
		5	10	15	20	25
•Aboriginal Employment and Business Opportunities		24				
•Aboriginal Engagement		20				
•Interaction with Existing Aboriginal Rights or Title		17				
•Traditional Land Use Activities by Aboriginal Persons		14				
•Wildlife Species		7				
•Caribou		6				
•Apprenticeship and Training •Diversity in the Workplace	•Exploration	5				
•Hunting Activities •Increased Railway Traffic	•Trapping	4				
•Cabins •Cumulative Effects on Wildlife Species	•Project Description / Registration	3				
•Availability of Power •Cumulative Effects on use of Lands and Resources for Traditional Purposes by Aboriginal Persons •Dust •Land Use Activities	•Post Closure •Quality of Life •Reclamation and Rehabilitation •Temporary Construction Camp •Waterbodies •Wildlife Habitat	2				
•Access to Property •Accidents and Malfunctions •Cumulative Effect on Community Services and Infrastructure •Cumulative Effects on Fish and Fish Habitat •Economic Feasibility •Engineering and Project Design •Financial Capacity for Consultation on the Project •Fishing Activities •Human Health •Local Economy •Location of Rail •Location of Tailings Impoundment	•Location of Transmission Line •Mining Operations •Project Schedule •Property Value •Public Participation •Recreational Activities •Safety •Species at Risk •Translation of Project Information •Travel Routes •Water Quality •Water Resources •Water Supply	1				

Post-Submission of EIS

Following submission of the EIS, Alderon will continue Aboriginal engagement, and public and stakeholder consultation activities. Alderon will continue efforts to engage with potentially affected and/or interested Aboriginal communities, including outreach to Band Councils, capacity building, and community meetings where identified as appropriate by community leaders.

6.0 EXISTING ENVIRONMENT

The proposed Kami Project is located in western Labrador, within the Labrador City and Wabush Municipal Planning Areas and the Hyron Regional Economic Zone. Mineral exploration, mining and associated industrial activities have been ongoing in the region since the late 1950s, and have become the backbone of its economic sustainability. The Kami property is flanked by several operating iron ore mines (IOC, Wabush Mines and ArcelorMittal) and will contribute strongly to the continued economic development and growth of the region by providing significant employment and business opportunities for the next thirty years.

The Project area is located to the immediate southwest of the Towns of Wabush and Labrador City and the existing mining and mineral processing operations in Labrador West, and to the northeast of the Town of Fermont, Québec. These are modern, vibrant communities, with relatively high employment rates and income levels amongst their residents, and which provide a wide range of services and infrastructure. The relatively high standards of living in this region have resulted from the mining developments and associated activities that have characterized the economies of the area over the past several decades. Although it is recognized that recent growth due to the expansion of mining activities in the region have seen some issues related to the availability and affordability of housing and other services and infrastructure as well as other socioeconomic issues in the area, the overall quality of life of its residents remains relatively high.



The existing (baseline) condition of the environment within and near the Project area is the result, and reflects the effects, of other past and on-going human activities in the region. Regional ambient air quality monitoring indicates that the average air quality in the region is good overall, with SO₂ and NO₂ ambient concentrations being below applicable standards and with total suspended particulate (TSP) levels occasionally exceeding guidelines. Baseline water quality monitoring data similarly shows that existing surface water quality is good, with several parameters occasionally and slightly exceeding ecological water quality guidelines.

The biophysical environment in which the Project lies is within the Mid Subarctic Forest (Michikamau) Ecoregion – ED432 Ecodistrict of western Labrador. Habitat types common to western Labrador are found throughout the Project area. These habitat types support a wide range of wildlife species that are common throughout the region.

Species at risk and species of conservation concern which have been observed in the Project area include: the Olive-sided Flycatcher (Threatened), and the Rusty Blackbird (species of special concern). There were no observations of any plant species listed as species at risk within the Project area. Eight plant species of conservation concern were recorded in the Project area, occurrences of all eight species were also recorded outside the vicinity of the Project. No caribou were observed in proximity to the Project area.

Wetlands cover a sizable proportion of the natural landscape of Labrador and are common throughout the Project area. Both Labrador City and Wabush have signed Municipal Wetland Stewardship Agreements with the provincial government and Eastern Habitat Joint Venture, which require the incorporation of wetland conservation in the scope of municipal planning. Each municipality was required to designate wetlands areas with their municipal planning areas as Habitat Management Units (Town of Labrador City and Eastern Joint Habitat Venture 2010; Town of Wabush and Eastern Habitat Joint Venture 2010). The Project has been designed to avoid impacts on the Management Units wherever possible, however, the ore body intersects the Pike Lake South Management Unit. No unique habitat features were identified within the management unit or elsewhere within the project area.

Fish species and habitat common to western Labrador are present within the Project area. Recreational fisheries are conducted throughout the region and in close proximity to the Project area. There were no observations of any fish species listed as species at risk within the Project area, and no Commercial or Aboriginal fisheries have been identified in or near the Project area.

Current land and resource use in the vicinity of the Project area includes municipal planning, industrial activities, cabin use, hunting and trapping, angling, wood harvesting, berry picking, snowmobiling, and boating among other recreational activities. Due to the close proximity to the towns of Labrador City and Wabush, recreational land use in this area is extensive. A number of cabins have been identified within the Project area.

No aboriginal communities exist in close proximity to the Project, the closest being Schefferville, located approximately 200 km to the north. However, the Project is located in an area which five aboriginal groups assert as their traditional territory.

There are no treaties or settled land claims which overlap the Project area and, although residents of Labrador West engage in recreational land and resource use activities throughout the region, based on the information available, there is no evidence of current use of lands and resources for traditional purposes by Aboriginal Persons in or immediately adjacent to the Project area. Additionally, no Historic and Cultural resources have been identified in the Project area.

The Environmental Impact Statement provides detailed descriptions of the existing biophysical and socio-economic environments that could be affected by the Project for each relevant VEC.

Details on each specific environmental component are found in the detailed VEC analysis. Baseline descriptions for each VEC are based on an ecosystem approach and are provided as appendices.

Stand alone baseline studies which describe the existing environment in more detail to support the evaluation of environmental effects, the development of mitigation measures and monitoring and follow up programs have been conducted for:

- Freshwater fish, fish habitat and fisheries;
- Water resources (fresh water quality and quantity for groundwater and surface water);
- Wetlands;
- Air quality monitoring; and
- Socio-economic (including housing, labour force, community services, employment demands, local infrastructure).

During the development of these baseline studies, government and non-government agencies have been engaged in the design and methodology for the collection of data to help ensure a thorough and comprehensive basis for the environmental assessment. The stand alone baseline studies are incorporated into the EIS document as appendices.



7.0 ENVIRONMENTAL EFFECTS ASSESSMENT

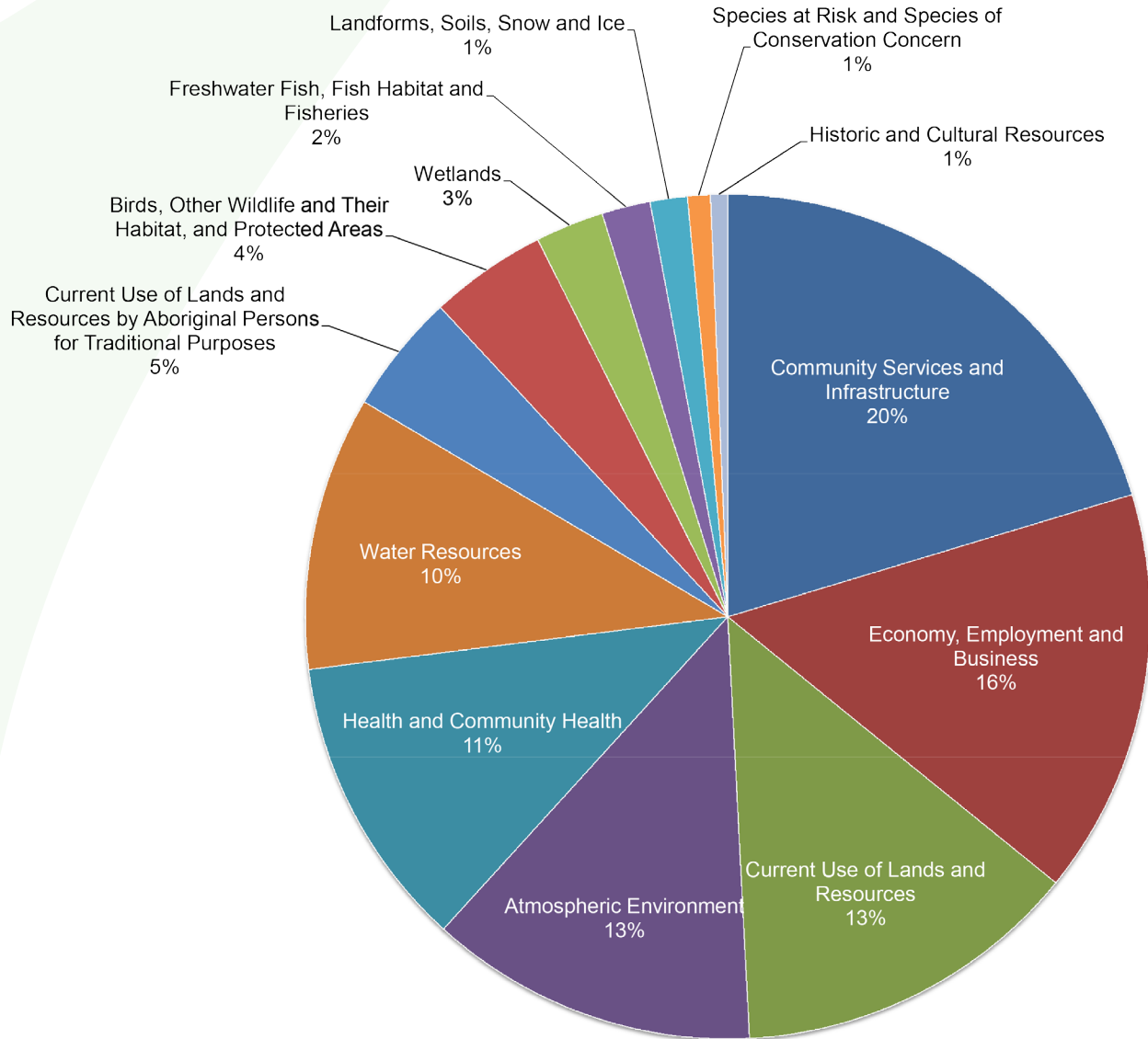
7.1 Method and Approach

Activities associated with each Project phase and with accidental events were identified to evaluate potential Project-related environmental effects. The potential environmental effects of each Project phase (construction, operations and maintenance, closure and reclamation) have been assessed for each VEC, based on the existing (pre-Project) conditions of each VEC and existing knowledge about the environmental effects of similar projects.

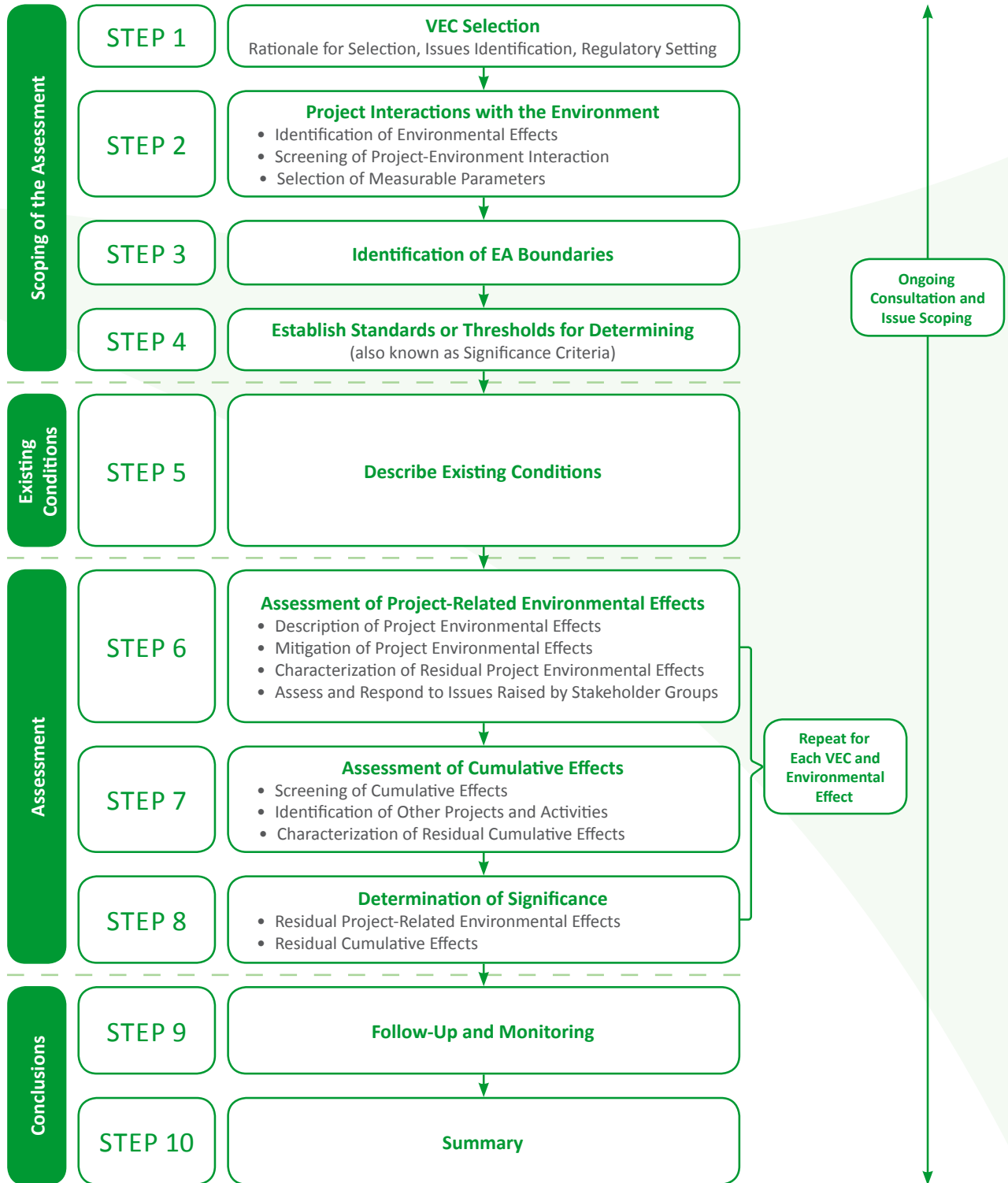
Effects remaining after mitigation measures have been applied, also known as residual effects, are characterized using specific criteria (direction, magnitude, geographic extent, duration, frequency, and reversibility) that are defined for each VEC. The significance of the Project-related environmental effects was then determined based on pre-defined criteria or thresholds for determining the significance of the residual effect. Residual Effects Assessment Summary Matrices are provided in *Appendix A*.

Alderon has undertaken a public consultation program and has engaged with potentially affected Aboriginal groups to understand the issues and concerns of stakeholders and Aboriginal groups. The environmental assessment focuses on these issues and concerns, using an issues-based approach to help stakeholders and Aboriginal groups identify how their issues have been addressed. The main categories in which issues were raised are presented in the figure below on an overall proportionate basis.

Proportion of Issues Identified During Aboriginal Engagement and Public Consultation Activities



Overview of Environmental Assessment Method



7.2 Valued Ecosystem Components

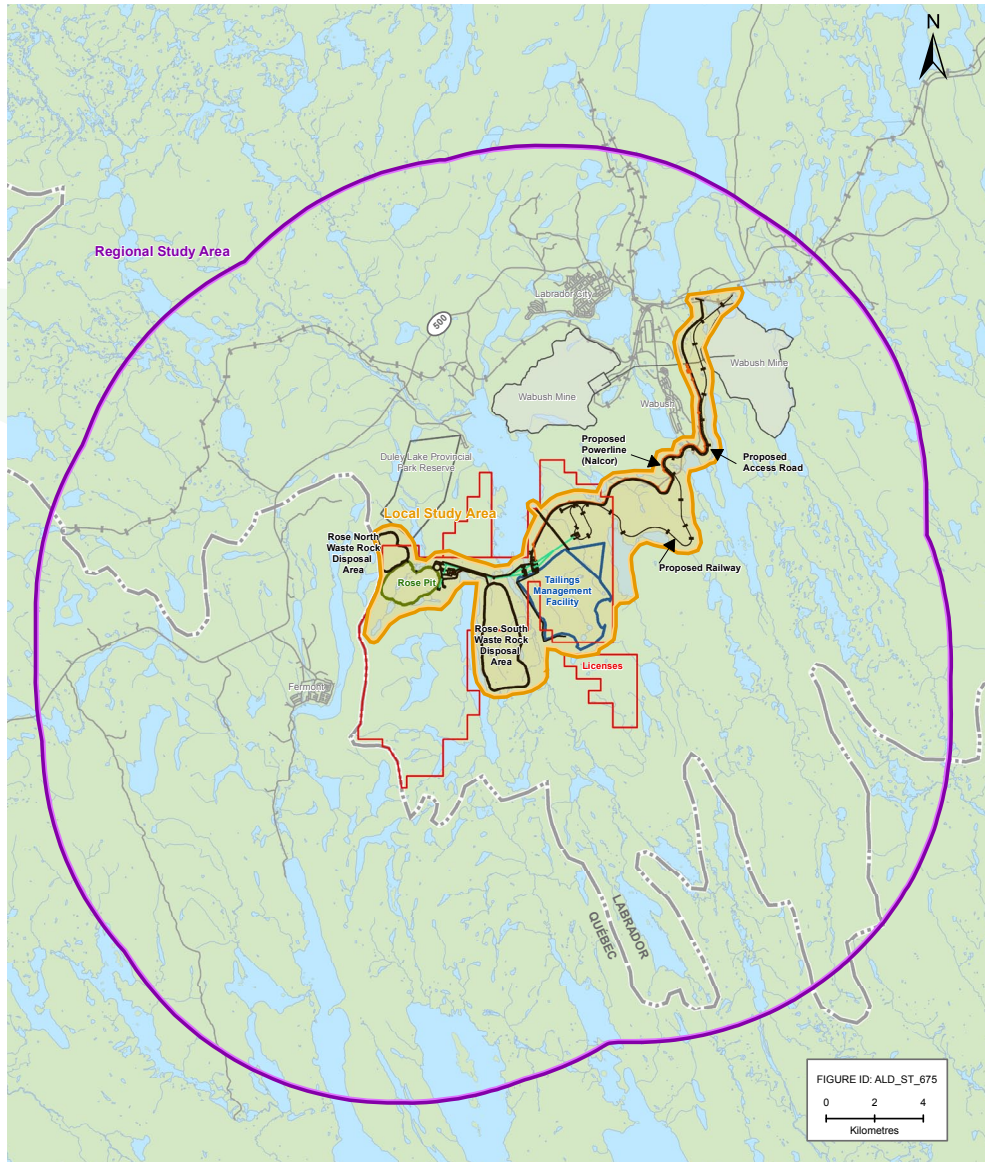
The environmental effects of the Project have been assessed in accordance with all applicable environmental assessment regulations, the EIS Guidelines and accepted industry best practices. A summary of the results of the environmental assessment for each VEC is presented below.

7.2.1 Atmospheric Environment

Atmospheric environment considers ambient air quality and the acoustic and visual environments (noise, vibrations, light) within the vicinity of the Project. Alderon conducted baseline monitoring programs for air quality and noise to characterize existing conditions of the atmospheric environment that could be affected by the Project. In addition to using data from existing monitoring stations, Alderon installed monitoring stations on the shore of Long Lake, in Wabush and in Fermont. This data was used to predict dispersion of dust and noise that may be generated by the Project.

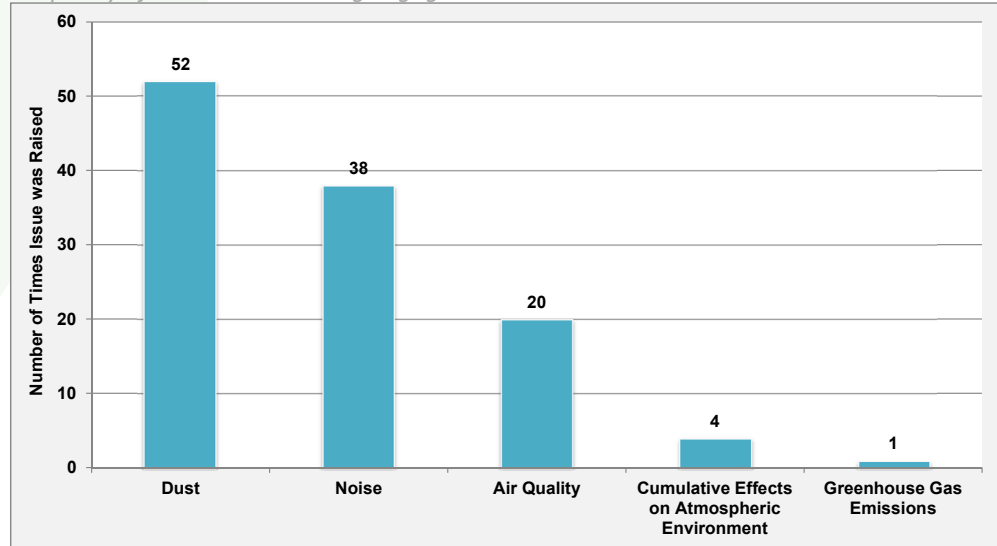


Atmospheric Environment Local and Regional Study Areas



Issues

Issues raised during consultation included Project-related changes in air quality, control of dust, dust from tailings, noise and greenhouse gas emissions. Alderon has measured baseline noise and air emissions and predicted Project-based emissions in order to design the Project to meet federal and provincial guidelines and address stakeholder concerns. Alderon will implement mitigation, such as progressive rehabilitation, to manage atmospheric emissions and will continue to monitor effects as appropriate. In response to issues raised by stakeholders, Alderon has also moved the Rose South Waste Rock Disposal Area approximately 5 km east, to minimize potential effects on the Town of Fermont. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities

Potential Environmental Effects

The Project is located in an area where mining and rail activities currently occur. The proposed Project will temporarily contribute to emissions, noise and vibration and lighting during Project construction and longer term air and greenhouse gas emissions, noise, vibration and industrial lighting during the operation of the Project.

Construction activities will result in emissions of air contaminants including particulate matter (dust) and combustion gases through the combustion of fuel in construction equipment. The emissions of criteria air contaminants during Project construction will be temporary in nature and are expected to be within regulatory objectives, standards and guidelines.

Construction and operation activities will produce noise emissions. The communities of Fermont, Labrador City and Wabush are separated from the facilities by distances of the order of 5 to 10 km, and are unlikely to experience noise resulting from the civil works. The cabins on Long Lake and Riordan Lake are within 5 km, and within a few hundred meters in certain cases and will experience some elevated noise levels. The south side of Wabush may experience noise from rail traffic.

The vibration related to drilling and blasting has been evaluated for the Project. Due to the distance from the Project site to the nearest receptors, vibration from the operation of heavy construction equipment will generally not be of concern.

Light emissions during Project operation will result from a number of mining activities. Light from the cluster of Project facilities at the south end of Long Lake will be generally visible to the cabins on the west shoreline.

Mitigation Measures

Alderon will implement mitigation measures to reduce significant adverse effects on properties. Key mitigation measures include progressive rehabilitation, use of dust suppressants, use of covered conveyors as required, adherence to a comprehensive equipment maintenance program and monitoring programs.

Residual Environmental Effects

Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.2 Landforms, Soils, Snow and Ice

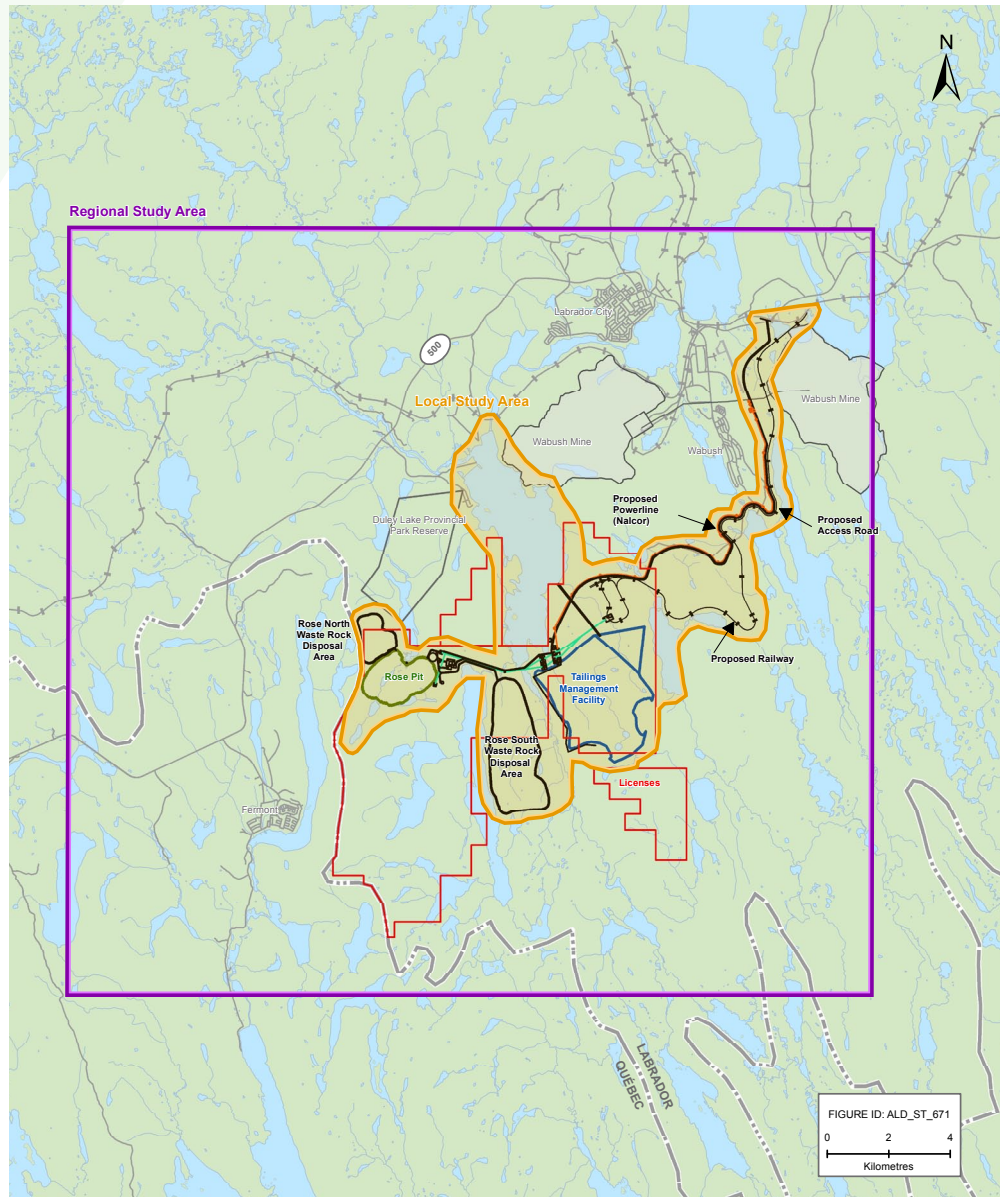
Landforms, Soils, Snow and Ice includes consideration of landforms, terrain stability, soil quality and quantity, snow and ice as well as the potential for Acid Rock Drainage (ARD) and metal leaching (ML). Existing information was used to develop this assessment, including results from an ecological land classification, bedrock geology mapping, terrain mapping, permafrost data and climatic data from Environment Canada. In addition, digital imagery was used in the interpretation of landforms, geomorphic processes (such as seepage), drainage, and soil conditions. The assessment of potential ARD/ML effects is based on historical data from similar mines, monitoring of existing mines and testing of the geological materials collected from the site.

The existing environment in the Project Development Area has mixed bedrock geology. The Project area is composed mainly of till, deposited directly by ice during the last glaciation, which covered most of Labrador. Only one unique or valuable landform feature has been identified within the Local Study Area. An approximately 5 km long esker runs along the west side of Waldorf River, east of the Rose South Waste Rock Disposal Area. The esker varies in width from 50 m to



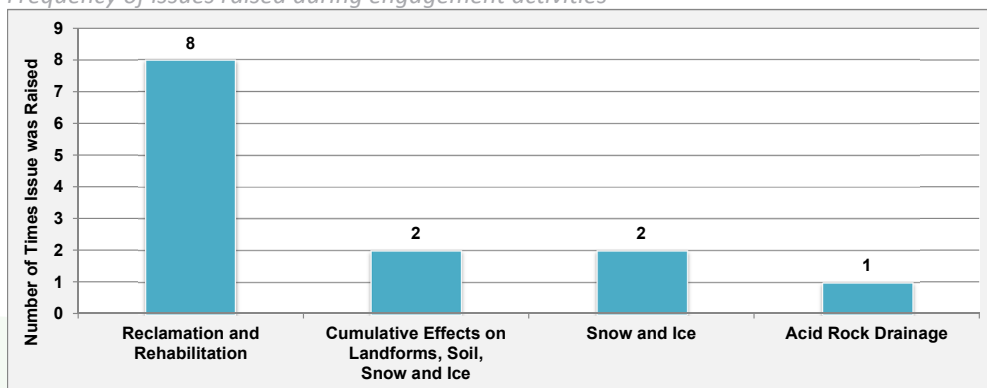
285 m and is between 5 to 20 m above the Waldorf River. Acid Base Accounting indicated that the waste rock is classified as non-acid generating.

Landforms, Soils, Snow and Ice Local and Regional Study Areas



Issues

Issues identified by participants relating to landforms, soil, snow and ice are shown in Figure 13.5. Participants identified reclamation and rehabilitation, cumulative effects, snow and ice, and acid rock drainage as issues of concern. To address these issues, Alderon will minimize the use of the esker, implement progressive rehabilitation, develop a Rehabilitation and Closure Plan and develop a Blasting Plan. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities

Potential Environmental Effects

Project-related environmental effects on Landforms, Soils, Snow and Ice include changes in landforms and terrain stability, change in soil quality and quantity, changes in snow and ice and acid rock drainage/metal leaching.

Construction activities will result in alterations to existing landforms and existing drainage regimes within the mining and processing areas. The construction of the roads, associated facilities and rail line will also result in alterations to the current landforms; however given the relatively gently undulating, rolling and inclined nature of the terrain coupled with overburden of up to 51 m in depth, it is not anticipated that any landforms will be lost.

Terrain stability is generally an issue for most mining projects. From a surficial geology perspective, no landslides or any evidence of slow mass movement were observed from an examination of existing aerial photographs.

Site preparation and construction activities have the potential to result in a change in soil quality and quantity. Airborne deposition of dust associated with construction has the potential to change soil quality. However, the parent geologic material contains iron, and therefore the deposition of dust composed of iron particulates will not adversely affect soil quality on upland soils.

Construction of the mine site and associated infrastructure will have the potential to affect snow distribution and subsequent drifting of snow. Much of this will be caused by changes in the microtopography which influences wind direction and speed.

Effects of acid rock drainage/metal leaching are not likely based on testing to date and experience with other operations.

Mitigation Measures

With the implementation of standard mitigation (such as maintenance of natural drainage patterns), shallow landslides are not anticipated.

Changes in soil quantity will be minimized through the stockpiling of peat and topsoil. These stockpiled soils will be used to reclaim the site progressively and at the time of mine closure. Effluent discharge will be treated prior to release to the receiving environment, minimizing subsequent effects to soil quality.

Effects to snow deposition and drifting will be mitigated through the use of snow

fences to control snow drifting in critical areas. Blasting will be managed so that the vibrations will not affect ice cover of nearby lakes.

Residual Environmental Effects

Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.3 Water Resources

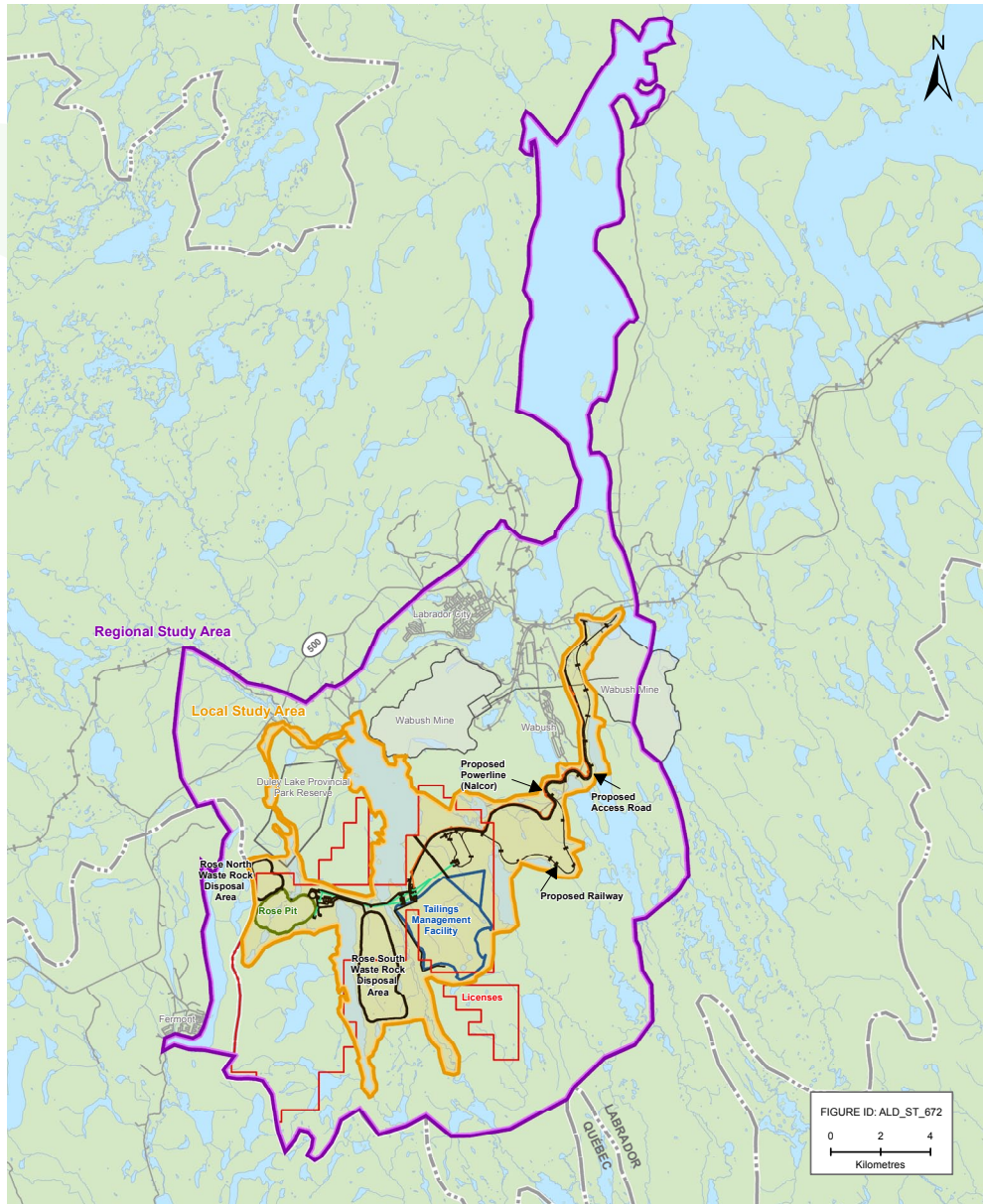
Water Resources combines both groundwater resources and surface water resources. Both are important components of the hydrologic cycle and an effect on one can influence the other. A baseline assessment of both surface water and groundwater was completed for this VEC. A hydrological assessment characterized the baseline conditions in watersheds potentially affected by the Project and included a regional hydrological information review, a climate and precipitation assessment, a water balance assessment, hydrological monitoring and hydrological modeling. Groundwater monitoring wells have been installed at and near the proposed open pit location and elsewhere throughout the Project area. Groundwater baseline data has been derived from exploration drilling programs, site-specific hydrogeological testing, automated and manual groundwater level monitoring, and water quality sampling throughout the Project area.

The Rose iron ore deposit lies within a northeast orientated drainage system which includes four small ponds and Rose Pond. Regional groundwater flow in the area generally follows topography from the upland areas toward the adjacent valleys, with short (typically less than a few kilometers) travel paths from point of recharge to point of discharge. Local groundwater flow is influenced by topography. Groundwater recharge from precipitation and runoff is typically limited to the late spring and summer when the ground is not frozen (May to October).



With respect to surface water resources, a system of watercourses and lakes within the Local Study Area eventually discharge into Wabush Lake. Drainage across the Local Study Area is generally directed north and east through a series of wetlands, lakes and connecting streams.

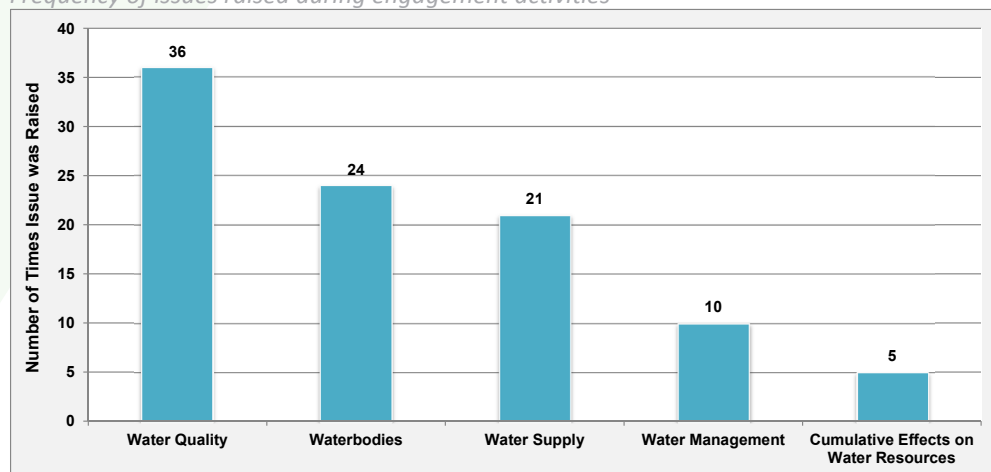
Water Resources Local and Regional Study Areas



Issues

Key issues identified during the EIS consultation and engagement program include contamination of water bodies and water supply, degradation of surface and groundwater water quality, water management and cumulative effects on water resources. In response to these issues, Alderon will implement mitigation measures such as implementation of a Water Management Plan, effluent treatment (including red water treatment) and dust control. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities



Potential Environmental Effects

Water resources may be affected during the construction, operation and decommissioning phases of the work. The primary direct Project related effects on groundwater resources will include large scale pumping and dewatering during operation of the open pit mine, and localized changes to groundwater quality in the vicinity of plant facilities, petroleum storage tanks, tailings impoundment and waste rock areas.

Alterations to the land surface resulting from Project facilities (such as the open pit and Tailings Management Facility) and activities affecting surface water (such as water withdrawal and treated effluent discharge) will be the primary drivers of effects to surface water resources. Surface water effects relate to potential changes in receiving water hydrology, water quality and sediment quality. Changes to flow and water quality relate to changes to the drainage, infiltration and groundwater discharge characteristics, Project water withdrawal and uses, and return of treated effluent to receiving waters.

Mitigation Measures

Best management practices will be used to manage erosion and sedimentation, drainage, and dewatering to minimize effects on groundwater and surface water resources. For example, effluent will be treated, including control of red water, to meet MMR and the NL *Environmental Control Water and Sewage Regulations* discharge limits. Perimeter ditches will be constructed around the open pit and waste rock disposal areas to collect and divert runoff. Groundwater levels between the open pit mine and identified groundwater users will be monitored throughout the life of the Project. Optimized water withdrawal and re-use, and restoration of water balance conditions and natural drainage patterns will further help mitigate adverse effects on surface water quality and quantity.

Residual Environmental Effects

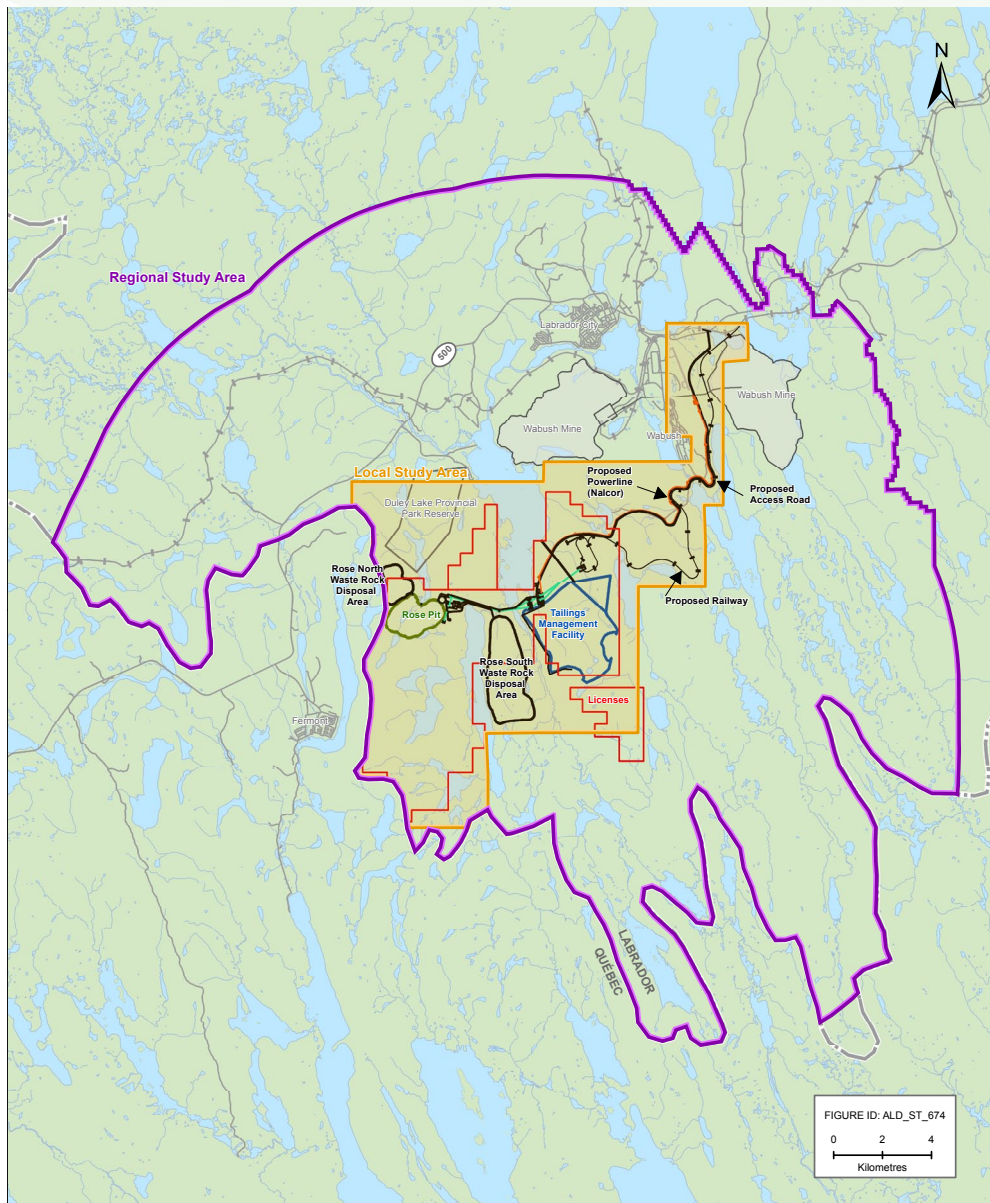
Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.4 Wetlands

Wetlands are characterized as lands having water at or near the ground surface and include bogs, fens, marshes, swamps, and shallow water wetlands. Wetlands were selected as a VEC because of the potential for the Project to interact with wetland environments and because of the relationship between this VEC, wildlife and other biological and physical environments. The majority of baseline data were collected through surveys of the Local Study Area which included detailed vegetation surveys, wetland inventories, and rare plant surveys.

Wetlands are relatively common throughout the Regional Study Area and Local Study Area; fens and marshes are the most abundant wetland type.

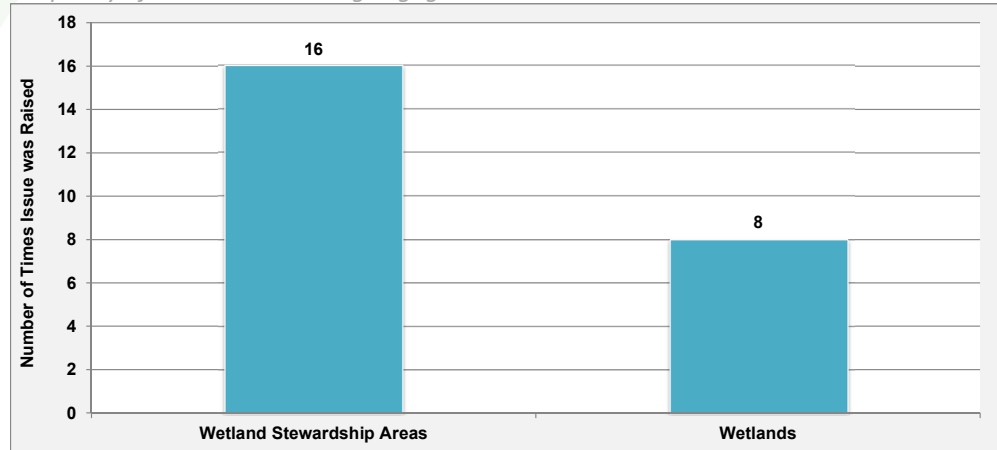
Wetlands Local and Regional Study Areas



Issues

The main issue of concern raised during the consultation process was the potential effect of the Project on wetland stewardship areas. Alderon is in the process of pursuing a Corporate Stewardship Agreement with the municipalities and the Province (through the Eastern Habitat Joint Venture) to address the effects of the Project on Management Units. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities



Potential Environmental Effects

Effects on wetlands will mostly occur during the construction phase. Construction activities have the potential to result in the alteration or loss of wetland supply and function. Site preparation (including clearing, excavation, material haulage, grading, and removal of overburden and stockpiling) will have the largest effect on wetland quality and quantity. Construction of access roads, railways, watercourse crossings, site buildings and other associated infrastructure may also contribute to the potential loss or alteration of wetlands. However, no wetland types will be lost completely as a result of Project activities. Project effects on wetlands function are expected to be of limited environmental consequence, as no long-term or far-future loss of wetlands function in the Local Study Area or the Regional Study Area is expected. Of the 8,918 ha of wetlands identified within the Regional Study Area, less than six percent will be lost.

Mitigation Measures

Effective Project planning, design, and the application of known and proven mitigation measures will be implemented as part of the Project to avoid or minimize the environmental effects on wetlands. General measures to minimize adverse effects will be addressed through a Project-specific Environmental Protection Plan developed for the Project prior to start of the construction phase.

Newfoundland and Labrador’s wetland habitat stewardship program “works within the context of the Eastern Habitat Joint Venture to secure, enhance and restore important fresh and saltwater wetlands for waterfowl and other wildlife species” (Government of Newfoundland and Labrador 2011b). Alderon is in the process of pursuing a Corporate Stewardship Agreement to further mitigate Project effects on wetlands

Residual Environmental Effects

Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

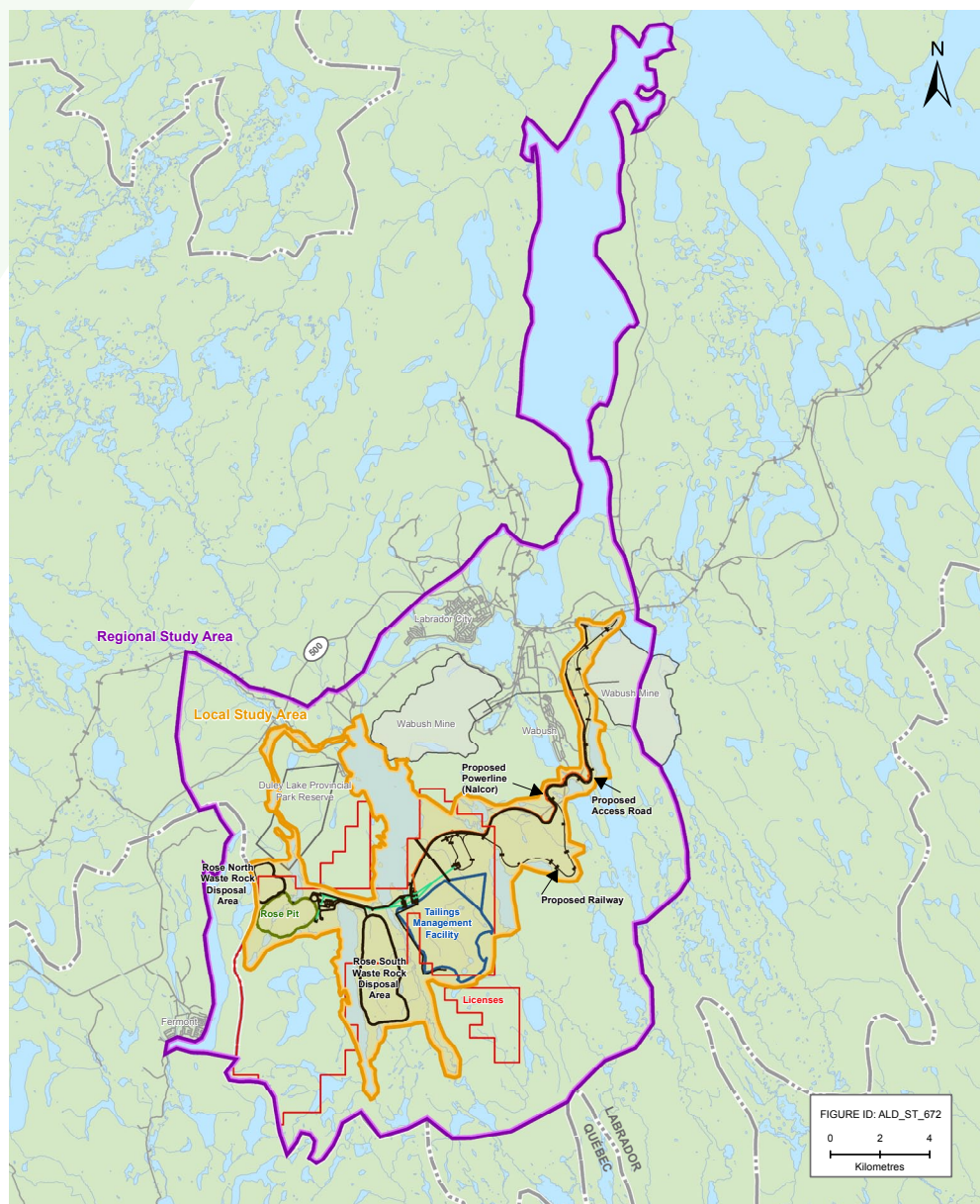
7.2.5 Freshwater Fish, Fish Habitat and Fisheries

Fish, Fish Habitat and Fisheries includes the populations and associated habitats for all freshwater fish species that may or will be affected by the Project. Fish include all species at any life stage, while fish habitat is defined as all productive and migratory fish habitat areas that may be affected by the Project. Productive fish habitat includes all areas that provide an important function in sustaining the life processes of fish including spawning grounds, nurseries, rearing areas, foraging areas and migration corridors. Fisheries are defined as the commercial, Aboriginal, subsistence, and recreational fisheries. However, because there are no reported Aboriginal, commercial or subsistence fisheries, only recreational fisheries are relevant to the assessment.

In-field studies were conducted in many of the lakes and streams in the Project Development Area. These field studies were augmented by information from other sources to provide a characterization of the waterbodies in the Local Study Area and Regional Study Area. Species observed included lake chub, slimy sculpin, brook trout, pearl dace, and longnose dace. None of the fish species observed provincially or federally listed species listed under the *Species at Risk Act* or the provincial *Endangered Species Act*.

Environmental effects to Freshwater Fish, Fish Habitat, and Fisheries are most likely to occur within the Project Development Area and Local Study Area, which include several drainages that eventually flow into Little Wabush Lake, and Wabush Lake.

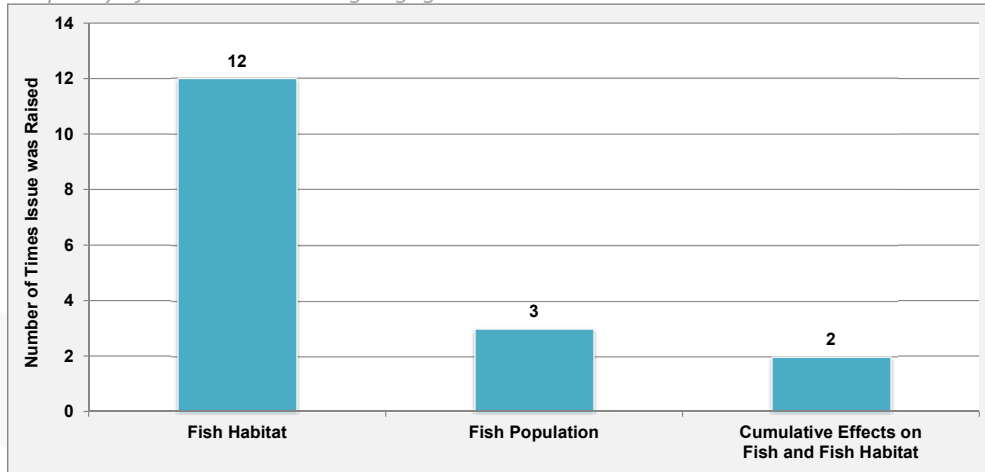




Issues

Issues arising during Aboriginal, public and stakeholder engagement included loss or contamination of fish habitat, the decline in fish populations or species, and cumulative effects on Fish, Fish Habitat and Fisheries. In order to address these issues, Alderon is working with Fisheries and Oceans Canada (DFO) to develop a compensation plan in compliance with the Fisheries Act. In addition, effluent and site drainage will be collected and treated as per regulatory requirements, to result in an acceptable effluent quality prior to discharge. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities



Potential Environmental Effects

The Project will interact with the Freshwater Fish, Fish Habitat and Fisheries where there is a change in fish habitat including: alteration or removal of existing fish habitat; change in water quality or sediment quality; change in water flow rates; and potential barriers to fish passage.

Effects on fish and fish habitat is anticipated during the construction phase of the Project, at the proposed open pit and associated waste rock disposal areas, and the Tailings Management Facility. Waterbodies, including Waldorf River will be crossed by site access roads and/or the rail line. Effects to fish habitat will be limited to alterations and losses from site preparation and construction activities.

Fish health and mortality is not likely to be affected, with the potential minor exception of limited injury and loss associated with fish re-location prior to dewatering ponds or streams. Fish health is not likely to experience a high magnitude effect as habitat protection and effluent quality measures will minimize adverse effects.

There is no commercial fishing in the area and there are no reported Aboriginal or subsistence fisheries in the area. The removal of fish habitat during construction will result in loss of opportunity for recreational fishing at the open pit site. Fishing occurs at other locations in the Local Study Area and beyond.

Mitigation Measures

The *Fisheries Act* is currently being amended to provide protection to ongoing Aboriginal, commercial and recreational fisheries by protecting the productivity of habitat that supports them. The Act allows the Minister to issue an Authorization under Section 35 (2) which will permit the work, undertaking or activity to occur that results in serious harm to fish. An Authorization will be issued only with the acceptance of an appropriate Compensation Plan which offsets any serious harm to fish, including permanent alteration or destruction of fish habitat. An Authorization must be issued before any action can be taken that would result in serious harm. The development and implementation of a Fish Compensation Plan will mitigate losses of fish habitat resulting from the Project to avoid serious harm to fish.

Other mitigation measures will include: control of total suspended solids through surface water management and settling ponds; treating mine site waters for

contaminants as needed to meet regulatory standards; dust suppression; providing adequate surface water and baseline flows; correctly sizing and installing culverts; and minimizing riparian disturbance and progressively rehabilitating..

Residual Environmental Effects

Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.6 Birds, Other Wildlife and Their Habitats and Protected Areas

Birds, Other Wildlife and Their Habitats and Protected Areas includes migratory and non-migratory birds (such as waterfowl, raptors, shorebirds, wetland birds and other land birds), amphibians, small mammals, ungulates (such as sedentary or migratory caribou populations in the region, and moose), and furbearers (such as black bear, wolf, marten, red fox, beaver and otter). Protected Areas are also considered as a component because of the potential for interactions between Project activities and existing or planned designated protected areas (such as national, provincial and regional parks; protected natural areas and watersheds; ecological reserves), and the need to protect ecosystems, species diversity, important habitats, and ecosystems.

Information used to determine the known or likely presence of wildlife species in or near the Project Development Area was derived from reviews of local historical records and other baseline data sources including *Species at Risk Act* (SARA) and Newfoundland and Labrador *Endangered Species Act* registries, Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Status Reports, Recovery and Management Plans (where available), government and non-government sources, existing literature and field data collection.



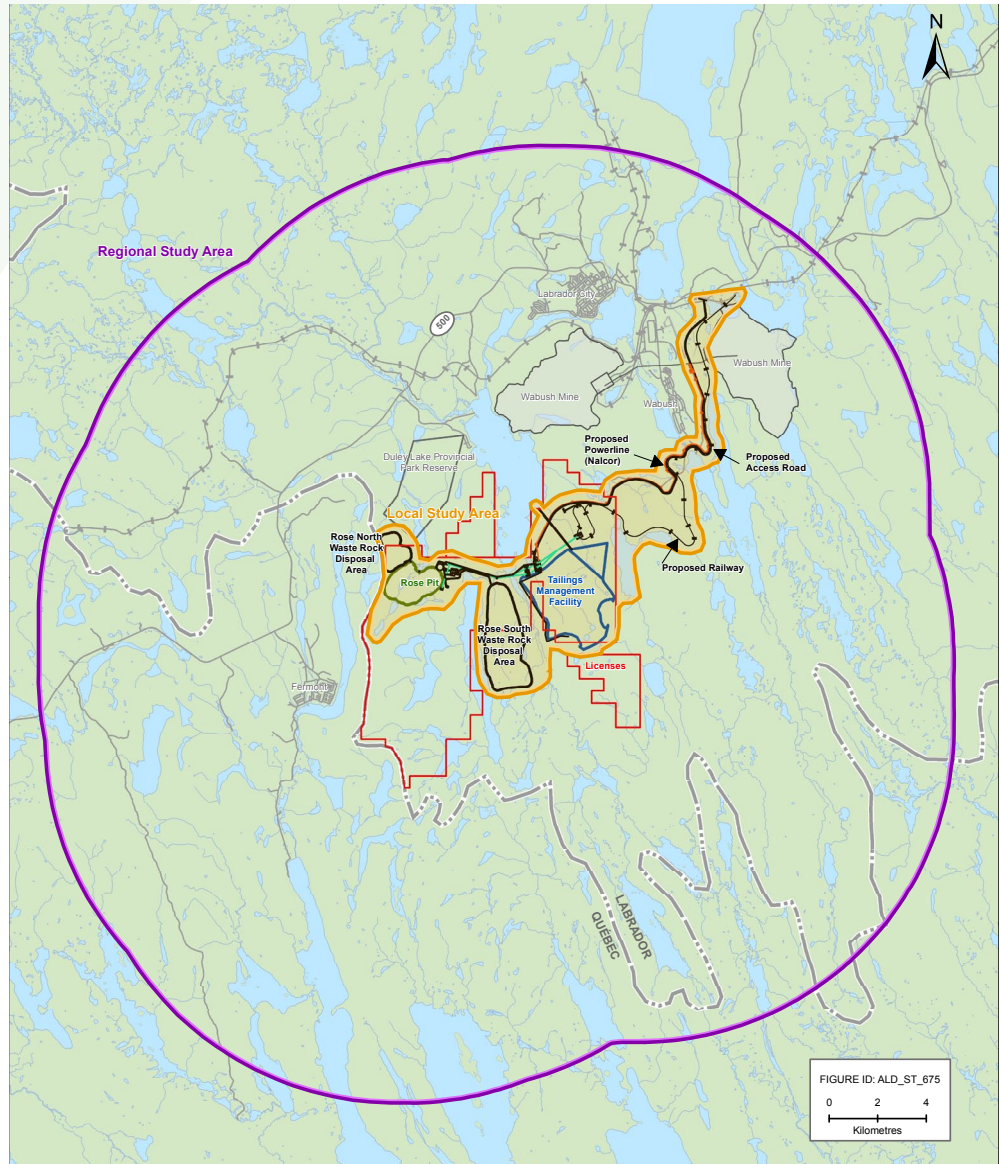
Historic records indicate that 163 bird species, of which 138 are considered migratory, have been observed in western Labrador. Site-specific surveys recorded 30 songbird species, 15 waterfowl species and five other bird species. Waterbirds were generally observed wherever suitable habitat was available. Field investigations confirmed the presence of several mammals in the Regional Study Area. No caribou were observed, nor were any mammalian species of conservation concern observed.

Terrestrial wildlife in western Labrador ranges from large animals to furbearers and other small mammals. During wildlife surveys conducted for the Kami Project in 2011 and 2012, no caribou was observed in the vicinity of the Project site. Moose is a relatively new species to Labrador, having expanded its range into western Labrador by dispersal from Québec in the 1950s. Black bear is the largest predator found in western Labrador. Furbearers in western Labrador include: wolf, red fox, eastern coyote, Canada lynx, marten, least weasel, ermine, wolverines, American mink, river otter, snowshoe hare, red squirrel and beavers. Other mammal species found in western Labrador include porcupine and several small mammals including red-backed vole, meadow vole, masked shrew and meadow jumping mouse.

The main groups of birds in western Labrador include raptors, waterfowl, and forest songbirds. Other species of shorebirds, upland game birds (grouse and ptarmigan species), water birds (gulls, terns, sandpipers), and woodpeckers are also present. Western Labrador is part of the Atlantic Flyway (the eastern most of several continent-wide corridors for migratory waterfowl). There are two groups of migratory waterfowl associated with the timing of their arrival at breeding locations in this region. The early-nesting group is comprised of dabbling ducks and geese and the late-nesting group is comprised of sea ducks and diving ducks. Waterfowl identified during surveys included Common Merganser, Common Goldeneye, Canada Goose, American Black Duck, and Ring-necked Duck.

Songbirds in western Labrador include members of the flycatcher, corvid, thrush, warbler, finch, and sparrow families. The most prevalent species were White-throated Sparrow, Ruby-crowned Kinglet, American Robin, Slate-coloured Junco and Yellow-rumped Warbler. Two fauna species (birds) listed as species at risk were observed in the vicinity of the Project site - Olive-sided Flycatcher and Rusty Blackbird.

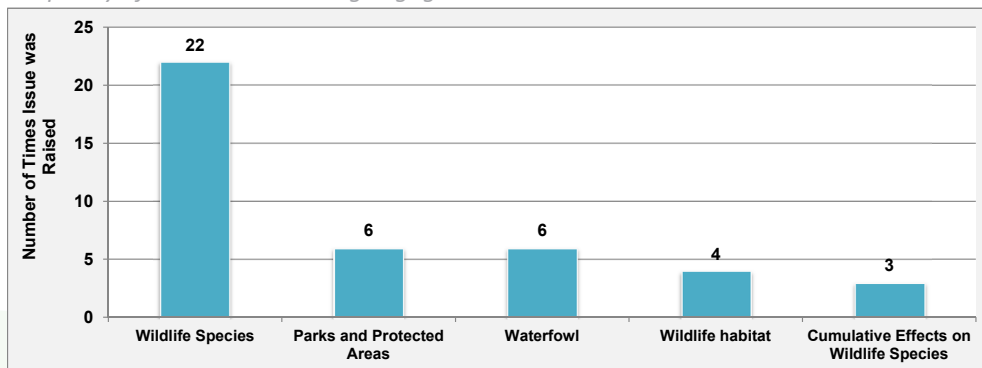
There are four Protected Areas that are adjacent to or overlap with proposed infrastructure for the Project: Duley Lake Provincial Park Reserve, Pike Lake South Management Unit (management unit within the municipality of Labrador City), Jean Lake Rapids Management Unit and Elephant Head Management Unit (latter two are management units within Wabush).



Issues

Effects on wildlife species was the key issue identified during consultation and engagement activities. Potential effects to parks and protected areas, waterfowl, and wildlife habitat were also raised as concerns. A variety of Project design and mitigation measures are incorporated into the Project to control emissions and discharges from the site, avoid sensitive species and their habitat to the extent possible, implement an Avifauna Management Plan, and minimize the size of the disturbed area. Alderon is in the process of pursuing a Corporate Stewardship Agreement to address concerns related to the wetlands stewardship program. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities



Potential Environmental Effects

Activities associated with Project construction, operation and maintenance, decommissioning and reclamation have the potential to affect the VEC. Site preparation and construction activities will result in the most important adverse effects of the Project through a change in habitat (loss or alteration of approximately 22 km² of habitat for wildlife species), a change in distribution and movement (such as abundance and distribution of wildlife species, sensory disturbance), a change in mortality risk (the direct loss of individual animals), a change in health (increased stress levels leading to the introduction of disease, and the masking of key auditory signals) and a change in protected areas (direct loss of a portion of the Pike Lake South Management Area, a Wetland Habitat Management Unit).

The effects of operational maintenance activities include some noise-related effects and site lighting which can lead to mortality of migrating birds under certain conditions (such as fog or mist at night).

Mitigation Measures

Effects on birds, other wildlife and their habitat, and protected areas will be mitigated through a series of measures designed to limit the area disturbed by the Project and then to control the emissions and discharges. The primary mitigation measures for Project-related effects include a Corporate Stewardship Agreement that Alderon is in the process of pursuing, an Avifauna Management Plan, restricting clearing to the period outside the breeding bird season (where feasible), no hunting or harassment of wildlife on Project site, and progressive reclamation.

Residual Environmental Effects

Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

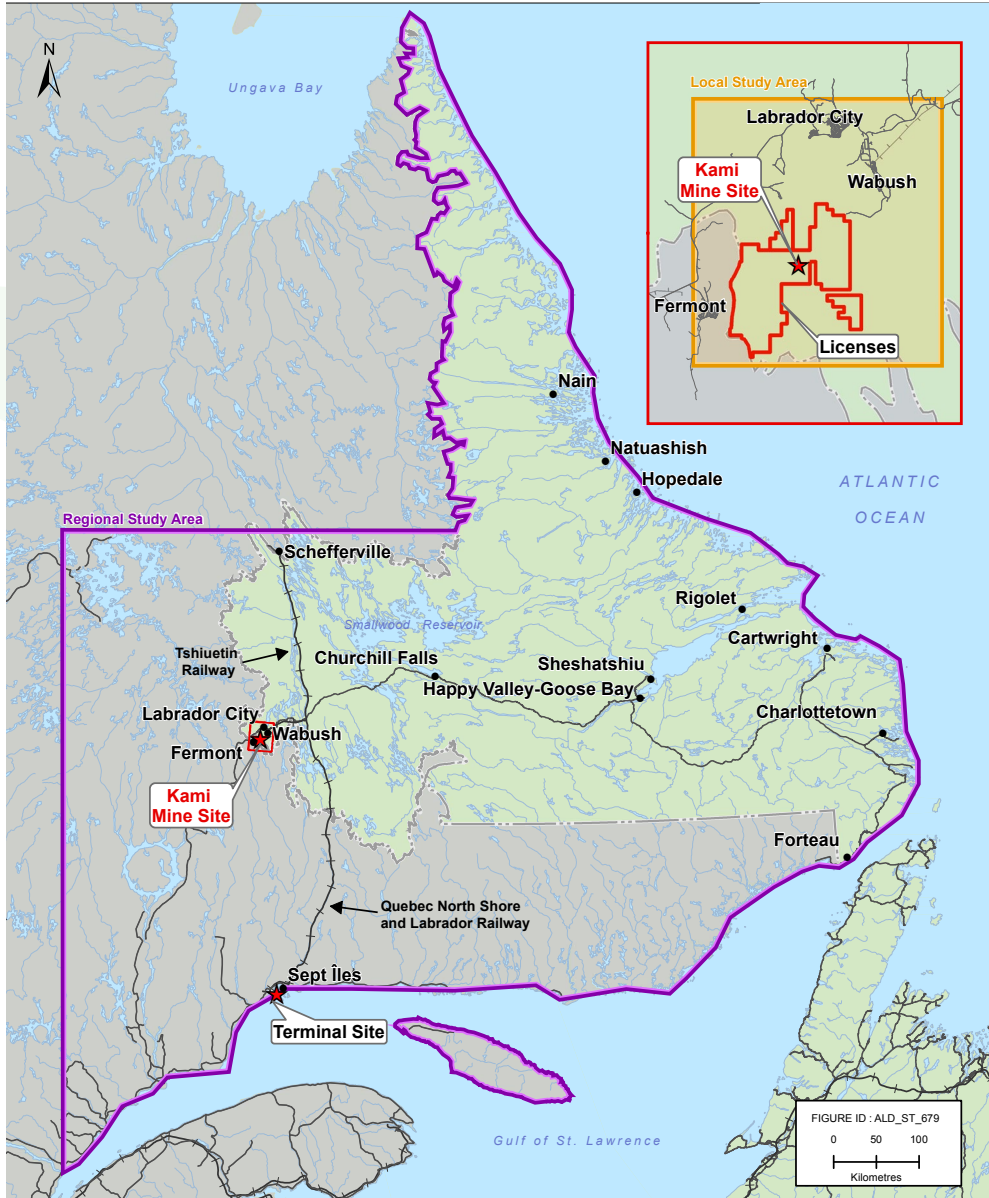
7.2.7 Species at Risk and Species of Conservation Concern

Species at risk and species of conservation concern include species of plant or animal, and/or its critical habitat, that is of provincial, national or international importance, particularly where the species and/or its critical habitat is afforded protection under federal or provincial legislation. Species at risk is a species that federally listed under Schedule 1 of SARA as “Endangered” or “Threatened” or provincially listed under Newfoundland and Labrador Endangered Species Act (NLESA) as “Endangered”, “Threatened” or “Vulnerable”. A species of conservation concern is species ranked as extremely rare or rare throughout its range in the province by Atlantic Canada Conservation Data Centre for vegetation; and/or ranked “May Be At Risk”, “Sensitive” or “Undetermined” by the NLDEC.

The assessment for this VEC included background research, field studies, and effects analysis focusing on species protected by the *Species At Risk Act* (SARA) and the Newfoundland and Labrador *Endangered Species Act*. The majority of data were collected through surveys completed during the 2011 and 2012 field seasons including detailed animal and vegetation surveys, wetland surveys and rare plant surveys.

There were no observations of any plant species listed as species at risk within the Project Development Area. Eight plant species of conservation concern were recorded in the Local Study Area including northern valerian, green false hellebore, chestnut sedge, lesser panicled sedge, whitestem pondweed, spike muhly, tall northern green orchid and yellow sedge. Occurrences of all these species were also recorded outside the vicinity of the Project. Two bird species listed as species at risk were observed in the vicinity of the Project site - Olive-sided Flycatcher and Rusty Blackbird. There were no observations of fish species at risk or fish species of conservation concern.

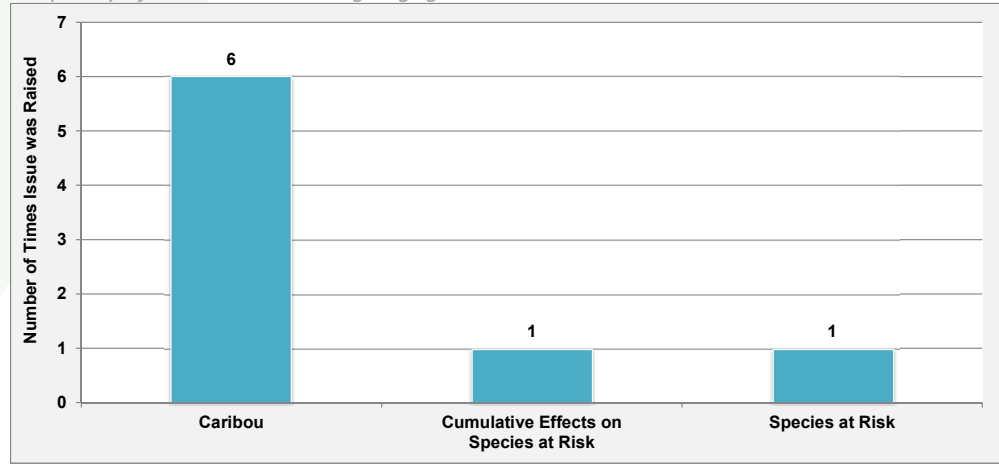
Species at Risk and Species of Conservation Concern Local and Regional Study Areas



Issues

Key issues raised by Aboriginal groups, the public, and other stakeholders included cumulative effects on caribou, concern about the decline of caribou and possibility of smaller herds being overlooked, observation of Species at Risk within or adjacent to the Project area and overall effects of the Project on Species at Risk. The sedentary and protected Lac Joseph Caribou Herd does not occur in this area and is not expected to be affected by Project. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities



Potential Environmental Effects

Activities associated with Project construction, operation and maintenance, decommissioning and reclamation have potential to affect the abundance and distribution of rare or sensitive plant species. The Project will result in the alteration or loss of approximately 22 km² of habitat that will result in the loss of some habitat (less than five percent of the area within the RSA). Effects to plant species of conservation concern will be limited to the construction phase where surface disturbance activities occur. Of the eight plant species recorded within the Local Study Area, all were recorded elsewhere in the Regional Study Areas. The preferred habitat types for Olive-sided Flycatcher are generally well represented in the greater landscape, accounting for approximately 21 percent of the Regional Study Area. Habitat for Rusty Blackbird is common in the Regional Study Area.

Mitigation Measures

Where feasible, plant species of conservation concern will be avoided. Where avoidance is not possible, transplantation of plant species of conservation concern to alternate sites will be investigated. A number of mitigation measures will be implemented to minimize environmental effects including minimizing of the Project footprint, establishing buffer around wetlands and riparian areas, and avoiding known locations of rare species or species of conservation concern, to the extent feasible.

Residual Environmental Effects

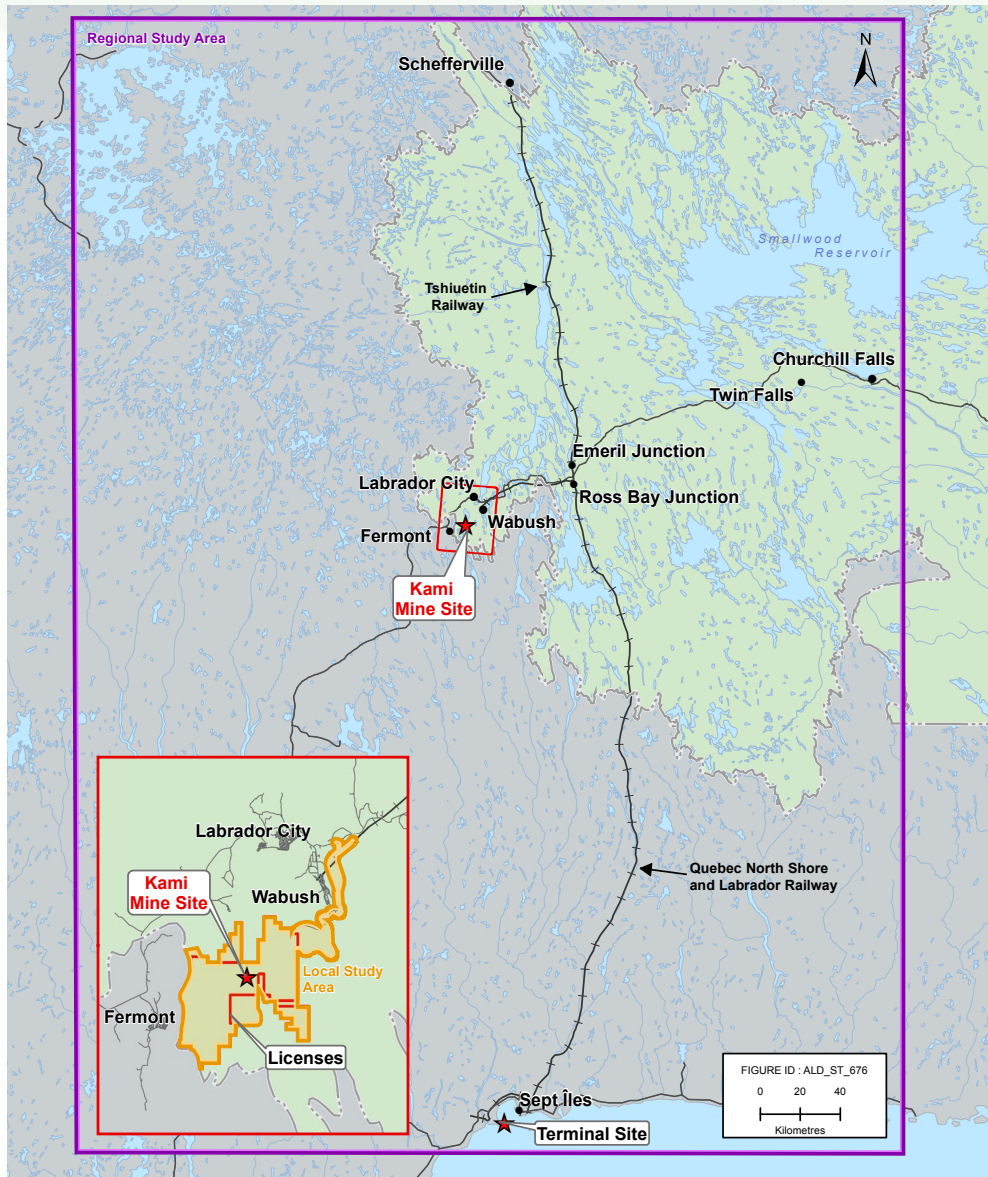
Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.8 Historic and Cultural Resources

Historic and Cultural Resources include sites, materials, landscapes or places of historic, archaeological, cultural / spiritual, palaeontological, and architectural importance. Background research, field surveys, archaeological potential mapping, and informant interviews were all completed to characterize baseline conditions and support the assessment of the potential effects of the Project.

Results of the background investigation indicated there was no known potential for cultural or spiritual sites, common fossil-types, or architectural resources to occur within the Project Development Area or in areas adjacent to it.

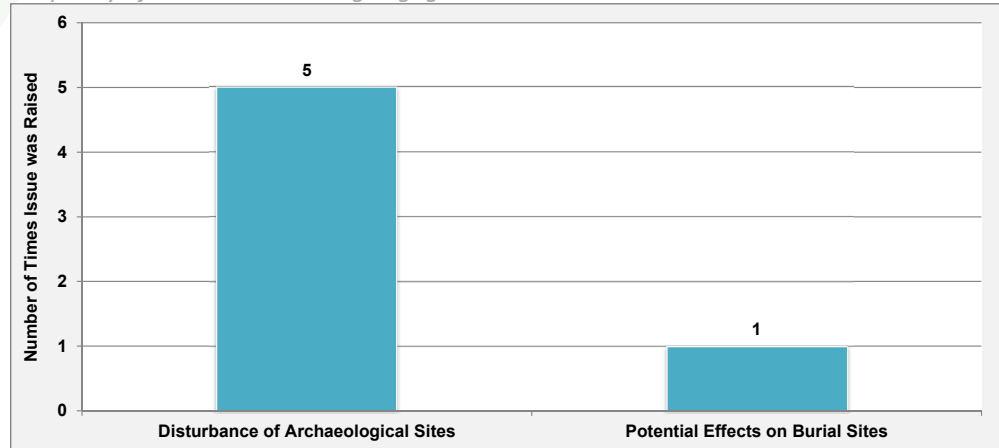
Historic and Cultural Resources Local and Regional Study Areas



Issues

Issues identified during consultation and engagement activities that relate to historic and cultural resources are disturbance of archaeological sites and potential effects on burial sites. A complete record of all comments with responses is included in *Appendix B*. Although archaeological sites have not been found and are not likely to be found, mitigation measures will be implemented in the event of an unexpected discovery of historic and cultural resources.

Frequency of issues raised during engagement activities



Potential Environmental Effects

A review of the Newfoundland and Labrador Archaeological Site Record Inventory indicated that no archaeological or contemporary sites are registered within the Local Study Area. Site-specific field surveys conducted within the Local Study Area also did not identify any sites. All Project activities that could potentially result in disturbance or loss of historic and cultural resources were assessed. However, because there are no archaeological sites within the local study area, the Project will not affect, or physically disturb, any known sites of archaeological importance.

Mitigation Measures

Although archaeological sites have not been found and are not likely to be found, mitigation measures will be implemented in the event of an unexpected discovery of historic and cultural resources, consistent with Alderon’s Environmental Protection Plan.

Residual Environmental Effects

The Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.9 Current Use of Lands and Resources for Traditional Purposes by Aboriginal Persons

The Guidelines require Alderon to assess the effect of any change that the Project may cause on the current use of land and resources for traditional purposes by Aboriginal persons. The current use of land and resources for traditional purposes by Aboriginal persons is a VEC because it is part of the CEEA definition of environmental effect. In order to assess the effects of the Project upon the current use of land and resources for traditional purposes by Aboriginal persons, the EIS:

- Identifies lands, waters and resources of specific social, economic, archaeological, cultural or spiritual value to Aboriginal persons; and
- Describes the current use of those lands, waters and resources for traditional purposes -- fishing, hunting, trapping, plant harvesting and navigation and other similar activities conducted for food, social, cultural or ceremonial purposes.

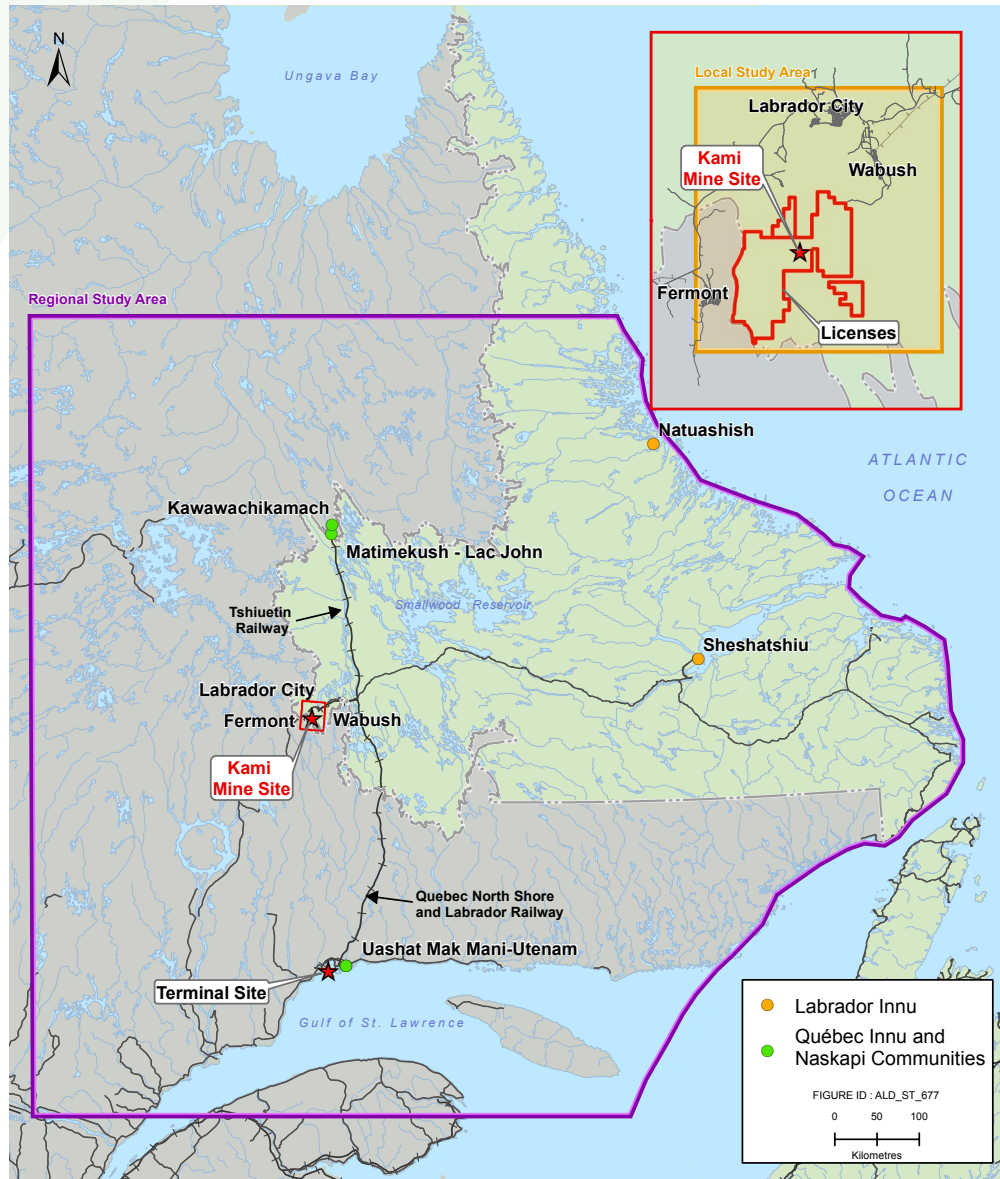
Alderon has conducted the assessment of the Project effects on the VEC by overlaying the proposed Project components and activities with available information respecting the nature, geographic range and frequency of current Aboriginal land and resource use activities in order to identify potential interactions.

Currently, no Aboriginal group has a settled land claim which includes the Project area. However, there are five Aboriginal groups which have asserted Aboriginal rights and title in and to the lands of western Labrador, including the Project Area, and which claim this region as their traditional territory:

- Labrador Innu;
- NunatuKavut Community Council (NCC);
- Uashat Mak Mani-Utenam Innu (Québec);
- Matimekush - Lac John Innu (Québec); and the
- Naskapi Nation of Kawawachikamach (Québec)

The Project also overlaps two beaver conservation reserves purportedly created by the Québec government in 1954 (Lots 244 and 245 of the Saguenay Beaver Reserve). While Lots 244 and 245 of the Saguenay Beaver Reserve are located entirely within Labrador and are therefore not subject to Québec legislation, these areas are the subject of asserted interests by certain traditional families of Uashat mak Mani-Utenam.

Alderon has reviewed all available information respecting land and resource use, including information provided directly by Aboriginal groups during the engagement process. In addition, Alderon has also reviewed information produced by land and resource use studies prepared by Aboriginal groups either as part of the Project environmental assessment or for the environmental assessment of other projects in western Labrador and northeastern Québec.

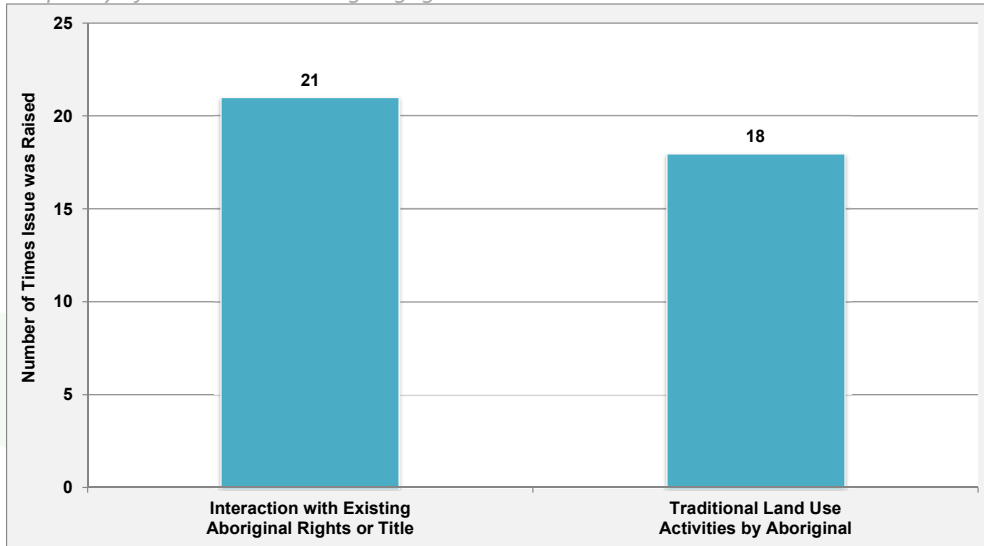


Issues

In order to determine the potential effects of the Project upon current Aboriginal land and resource use for traditional purposes, Alderon has made significant efforts to engage with each of the five identified Aboriginal groups to understand land and resource use activities in the region and to identify and respond to community concerns associated with the potential effects of the Project upon these activities.

Issues raised by Aboriginal groups include possible interaction of the Project with existing Aboriginal rights or title; and possible impact on traditional land and resource use activities. Alderon recognizes that the Project area is contained within lands subject to asserted Aboriginal right and will continue to engage Aboriginal groups and communities in order to monitor the effects of the Project upon Aboriginal land and resource use.

A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities

Potential Environmental Effects

Alderon has assessed the effects of the Project upon this VEC from three perspectives—activity distribution, activity levels and quality and cultural value of the activity—and has concluded that the Project is not likely to result in any significant adverse effects to the current use of lands and resources for traditional purposes by Aboriginal persons.

Existing and available information indicates that none of the five Aboriginal groups currently undertakes traditional land and resource use activities within or near the PDA or the LSA. Current land and resource use by the Labrador Innu appears to be focused in central and southeastern Labrador and while there is evidence of some usage in western Labrador along the TransLabrador Highway, this activity does not appear to occur within or near the Project area. While each of Uashat mak Mani-Utenam and Matimekush-Lac John engage in land and resource use for traditional purposes within their traditional territories, the activities are conducted in areas in proximity to the communities and not within the PDA or the LSA. In addition, there is no evidence that trapping or any other land and resource use activity is currently practiced by Uashat mak Mani-Utenam in Lots 244 and 245 of the Saguenay Beaver Reserves. Similarly, the Naskapi Nation of Kawawachikamach has indicated in its engagement with Alderon that it does not enter the PDA and that its land and resource use activities are concentrated in the areas surrounding Kawawachikamach and other areas that are accessible by railway and road.

NCC members residing in Labrador City and Wabush currently undertake a variety of land and resource use activities throughout the region, including hunting, fishing, berry picking, camping and associated travel. However, such activities, while clearly reflective of local knowledge, may not be considered traditional in that they are not necessarily a continuation of ancestral activities that were practiced by this group historically within this area of Western Labrador. The activities of NCC members have however been considered integrally within the overall assessment of current land and resource use in and near the Project area.

The Project will result in localized effects within the PDA and LSA. Such effects include restrictions upon site access within the PDA for security reasons during

construction and operations, alteration of the natural landscape and other localized disturbances in the PDA and LSA due to noise, dust and visual intrusions. However, these localized effects and disturbances will not adversely affect the location or frequency of current land and resource use by Aboriginal persons for traditional purposes. While the Project area is within the asserted traditional territory of each of the five Aboriginal groups, there is no evidence of current use of land and resources for traditional purposes by any of the groups within either the PDA or the LSA. Nor are there any known sites of historical, cultural or spiritual importance to any Aboriginal group within either the PDA or the LSA. Any current use of land and resources for traditional purposes by Aboriginal persons in the region outside the Local Study Area will be unaffected as the Project will not result in any significant adverse effects upon the quantity or quality of vegetation, fish or wildlife resources or upon habitat. As a result and based on information available to Alderon, the Project is not likely to adversely affect the location or availability/timing of the current use of land and resources for traditional purposes by Aboriginal persons.

Alderon has also assessed the effects of Project-employment upon the ability of Aboriginal persons to participate in traditional land and resource use activities in the RDA. Although there is no evidence of traditional land and resource usage in either the PDA or in the LSA, traditional activity levels in the region may be affected by increased participation in the Project workforce. Employment for extended periods away from home communities may interfere with traditional activities and other cultural pursuits. To address these potential effects, Alderon will continue to engage with each Aboriginal group to consider alternative work rotations and/or cultural leave provisions to permit participation in traditional activities.

As the Project is not likely to adversely affect the location or timing of the current use of land and resources for traditional purposes by Aboriginal persons, nor the overall level of participation in such activities by Aboriginal persons and groups, no associated and consequent decrease in the overall quality or underlying cultural value of the current use of land and resources for traditional purposes by Aboriginal persons is anticipated.

Mitigation Measures

Although based on information obtained to date there is no evidence that the Project will have significant adverse effects upon the current use of land and resources for traditional purposes by Aboriginal persons, Alderon recognizes that the Project area is contained within lands subject to asserted Aboriginal rights. Alderon will continue to engage Aboriginal groups and communities in order to monitor the effects of the Project upon Aboriginal land and resource use and will take such mitigation measures as may be necessary and appropriate.

Residual Environmental Effects

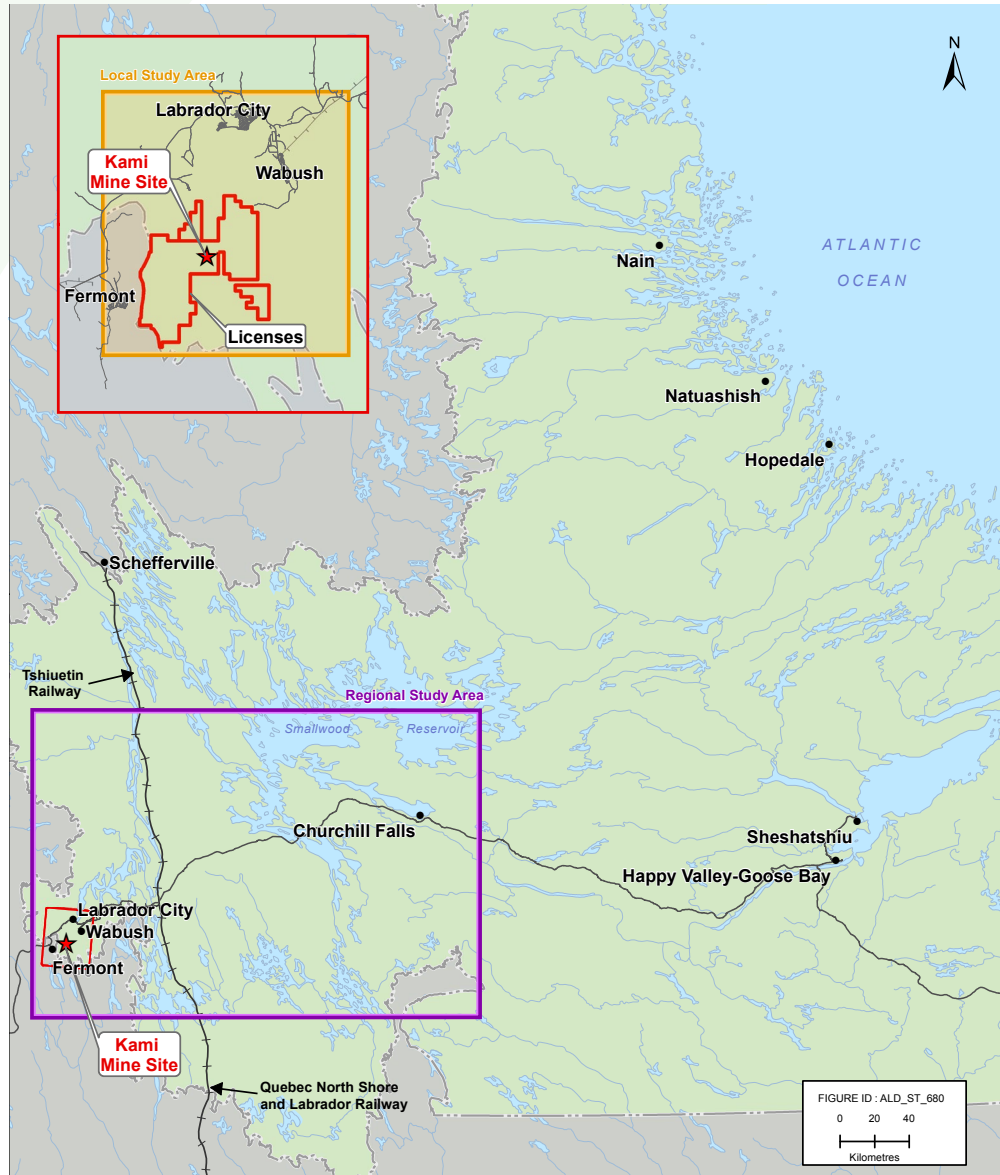
The Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.10 Other Current Use of Lands and Resources

Other Current Use of Lands and Resources is defined as any current (1990 to present) land use or harvesting, including industrial uses, undertaken by non-Aboriginal persons or communities in western Labrador and Fermont, Québec. In particular, this VEC focuses on current use of lands and resources in the Local Study Area and Regional Study Area. The assessment of Project environmental effects on this VEC included a review of publically available secondary source material and detailed informant interviews with local land and resource users to characterize local and regional baseline conditions.

Baseline data collection and analysis indicates that many people from Labrador City, Wabush, and Fermont, use the lands and resources of western Labrador for a number of recreational activities such as snowmobiling, fishing and resource harvesting. There are many cabins located in western Labrador, the majority of which are situated along the major water bodies such as Long Lake, Walsh River, Mills Lake, Waldorf River, Riordan Lake, and Upper and Lower Loon lakes.

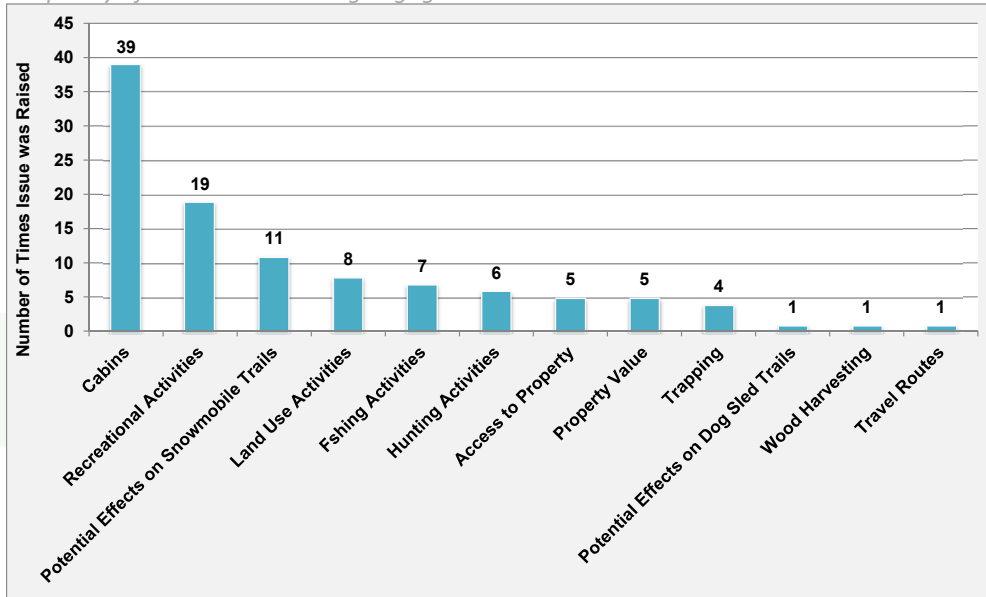




Issues

Issues raised during consultation include potential effects on cabins, recreational activities, potential effects on snowmobile trails, land use activities, fishing activities, hunting activities, access to property, property value, trapping, wood harvesting, and travel routes. Alderon will comply with all applicable regulatory standards and will develop mitigation/effects management measures and monitoring to be implemented at the appropriate Project phase to minimize effects on land use. Alderon will continue to engage with cabin owners to address Project effects. Changes to visual aesthetics, including red water and large Project features, were identified as an issue by many participants. Alderon conducted a viewshed analysis and developed before and after photosimulations. These analyses indicate that large Project features will be minimally visible from the three adjacent municipalities. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities



Potential Environmental Effects

Several Project activities will require implementation of restricted access zones around Project activities and features, and/or alteration of landscapes or waterbodies alteration. These restrictions and alterations will affect access to lands and resources during Project construction and operation and maintenance phases and result in a corresponding change in level of activity or use of these lands and resources. Change in cabin use could result from elevated noise and dust levels and/or by change in access to cabin areas. The current viewscape may be altered by physical features or works that are visible from outside the Project Development Area. The Project was also assessed for effects to designated land use.

Mitigation Measures

Mitigation measures to minimize adverse effects involve a combination of design features (such as use of span bridges to facilitate navigation, progressive rehabilitation, relocation of Project features to minimize viewshed effects) and effects management measures (such as air/noise/water management, development of a blasting plan). Alderon is also committed to continued engagement with stakeholder groups to understand and address potential issues of concerns. More specifically, Alderon will work with local snowmobile and cross country ski organizations to address Project effects, and with cabin owners to address Project effects on access.

Residual Environmental Effects

Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

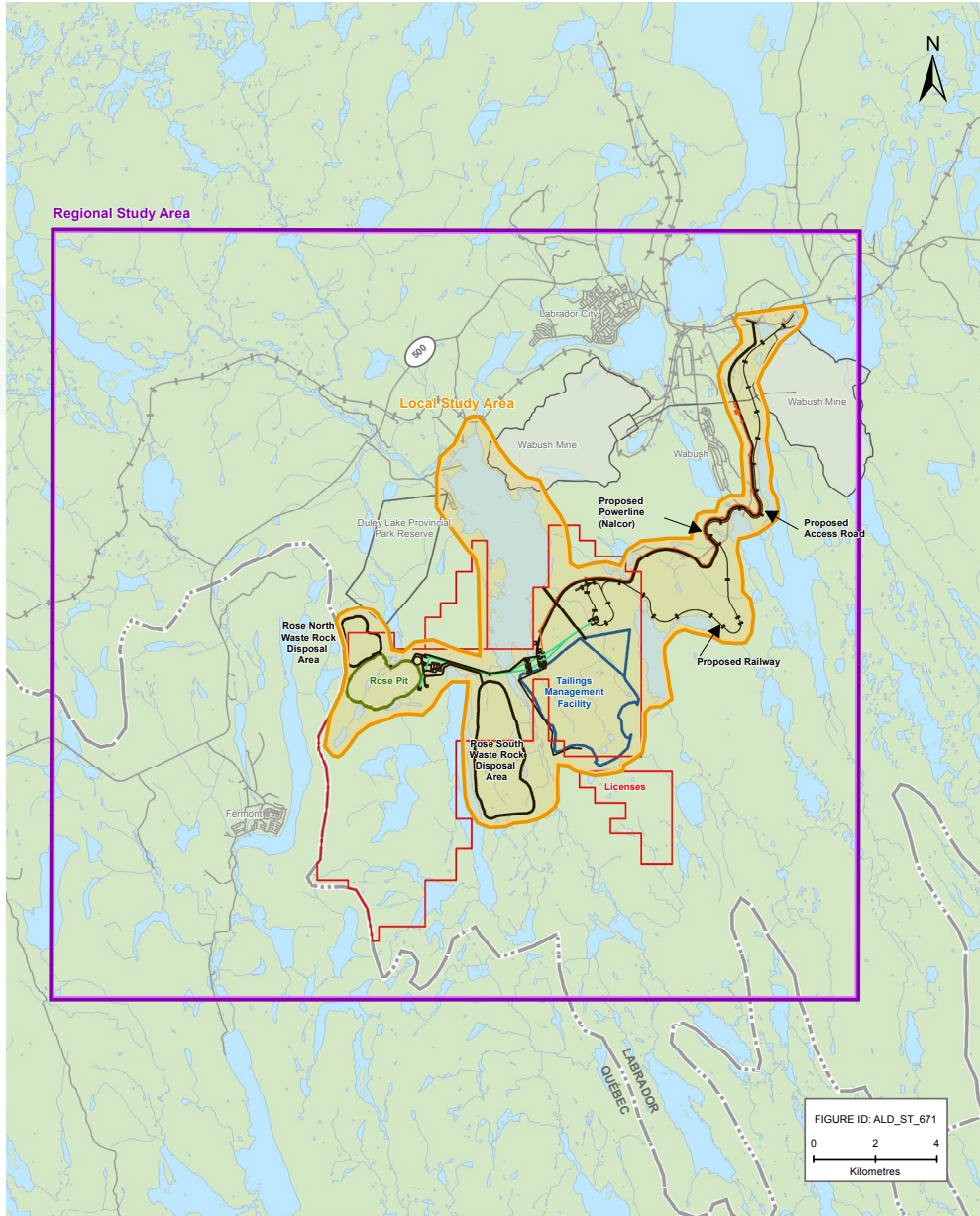
7.2.11 Community Services and Infrastructure

Community Services and Infrastructure was selected as a VEC because the Project has the potential to affect the ability of nearby communities, Labrador City, Wabush and Fermont to deliver physical and social services and infrastructure. Baseline data on demographics and information about services and infrastructure was collected through organization websites, interviews with municipal governments and local and regional authorities and boards and agencies at the community level.

Background information for Community Services and Infrastructure included a description of the current situation and recent trends in western Labrador and Fermont with respect to employment and social services, health services and social programs, training and education services and programs, safety and security, municipal administrative capacity, municipal services and infrastructure, recreational services and infrastructure, availability of services and infrastructure for women, transportation infrastructure, commercial and industrial infrastructure and housing and accommodations (residential and tourist).



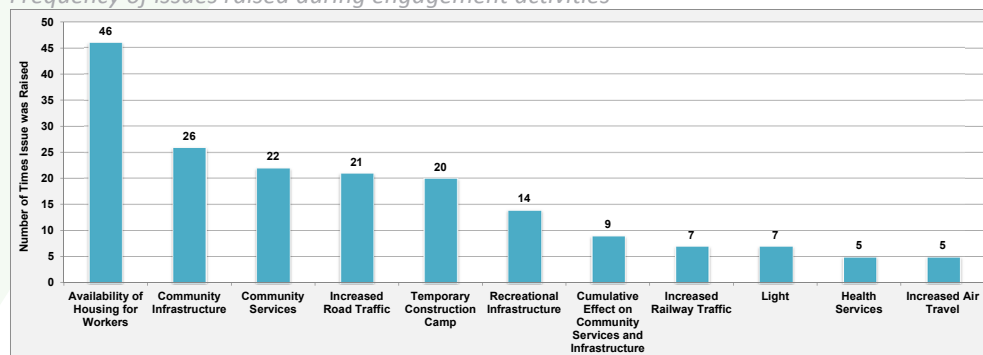
Community Services and Infrastructure Regional Study Area



Issues

Potential issues of concern relating to Community Services and Infrastructure include availability of housing for workers, community infrastructure, community services, increased road traffic, temporary construction camp, recreational infrastructure, cumulative effects, increased railway traffic, light, health services, and increased air travel. Alderon will implement a number of management initiatives to minimize Project effects including engagement with town councils to develop a Project accommodation plan, and building an access road to the Project site to minimize Project-related traffic on municipal roads. Alderon has also been participating in the Labrador West Regional Task Force and the Labrador West Community Advisory Panel to address issues related to community services and infrastructure in western Labrador. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities



Potential Environmental Effects

Effects on Community Services and Infrastructure will primarily be a function of the level of in-migration to the area and the consequent increase of demand on infrastructure and services. Potential effects between the Project and municipal services and infrastructure in western Labrador during construction will be associated primarily with the:

- Movement of personnel and some material and equipment through the Wabush Airport;
- Movement of personnel, materials and equipment by road through western Labrador;
- Increased demands on services and infrastructure arising from Project-related in-migration.

Potential effects between the Project and community services and infrastructure during operation will be associated primarily with in-migration. Due to their proximity and infrastructure, Labrador City and Wabush will be the primary hub for the Project, through which non-local labour will arrive and depart, and materials and equipment will be shipped. Therefore, most of the Project effects on services and infrastructure are expected to occur there. These effects are not expected to be significant as a result of regular liaison between Alderon and relevant authorities.

Mitigation Measures

To manage effects related to affordable and available housing, Alderon is currently negotiating MOUs with the Town of Labrador City and the Town of Wabush to develop and implement a Project accommodation strategy. Alderon will have a number of management initiatives in place to minimize Project effects during all phases including building an access road to the Project site to minimize Project-related traffic on roads. Alderon will continue to evaluate potential Project-related implications of the use of local, regional and provincial infrastructure and services. This will include direct Project requirements as well as indirect and induced increases in use of and demand for infrastructure and services by Project workers and their families.

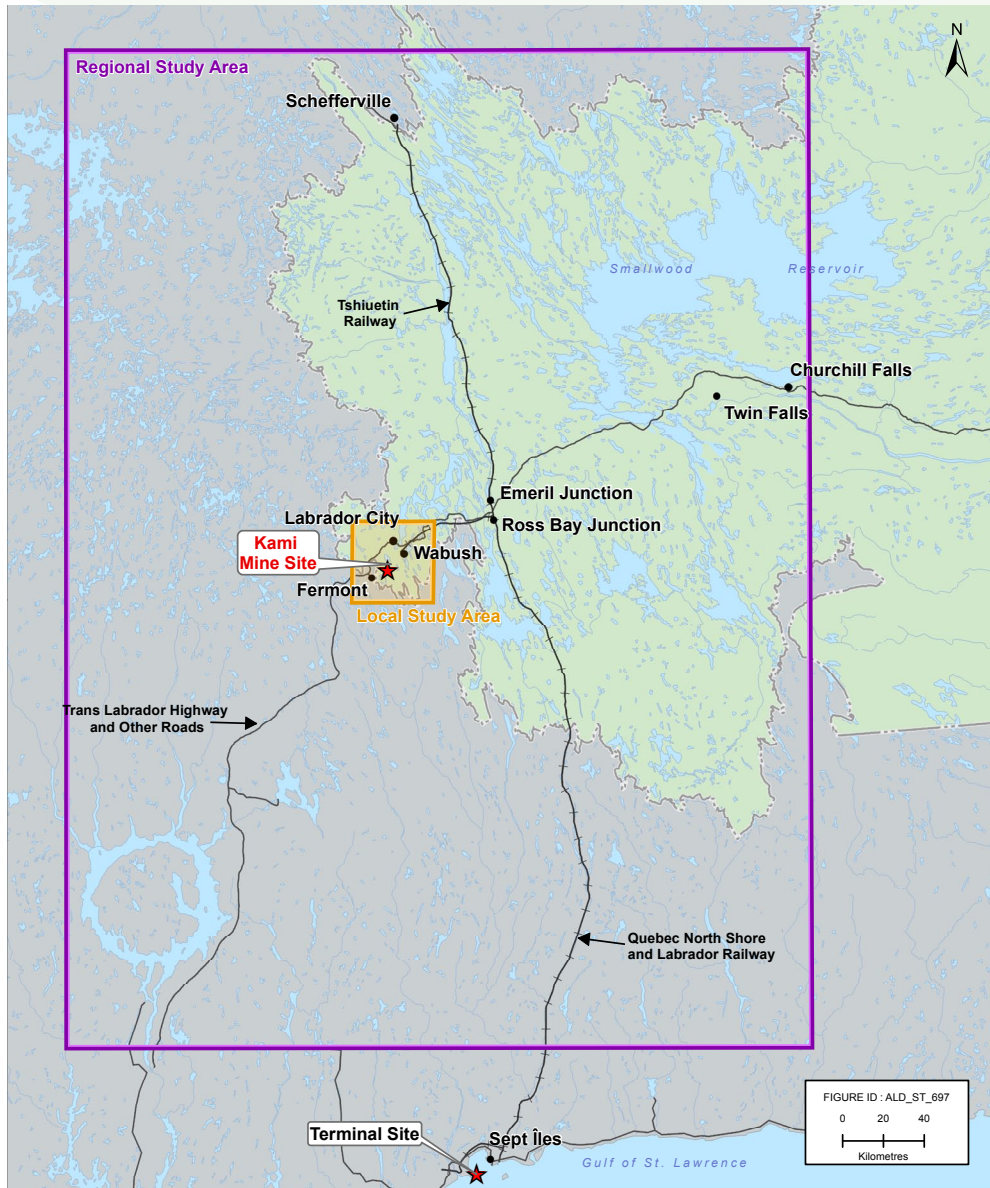
Residual Environmental Effects

Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.12 Health and Community Health

Health and Community Health considers both individuals and communities that may be affected (beneficially and/or adversely) by various Project components and activities and/or their associated and resulting environmental outcomes (e.g., dust, noise, light and/or aesthetic changes; presence of Project works and personnel, employment and income). Various indicators, including self-assessed health status, and prevalence of disease, are used to analyze community health in western Labrador. Overall, the residents of western Labrador enjoy relatively high levels of good health and well-being and report lower levels of life stress compared to other jurisdictions. A Human Health Risk Assessment was conducted for the Project to assess effects to physical effects.

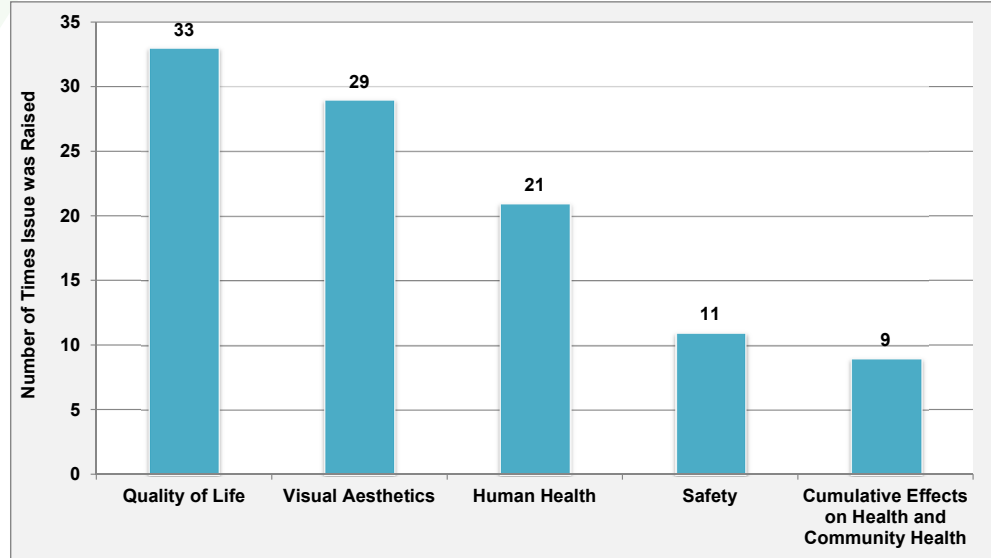
Health and Community Health Local and Regional Study Areas



Issues

Issues identified during consultation and engagement activities that relate to health and community health are shown in the figure below. The main issues raised by participants include quality of life, visual aesthetics, human health, safety, and cumulative effects. A complete record of all comments with responses is included in *Appendix B*. Alderon will develop mitigation/effects management measures and monitoring to manage effects on Health and Community Health.

Frequency of issues raised during engagement activities



Potential Environmental Effects

Physical health is primarily affected by air emissions and water discharges, and although effects on air and water quality will begin during construction, they are expected to be greatest during operations, diminishing again at closure and post-closure. The operation and maintenance of the Project will result in fugitive emissions of chemicals of potential concern; however, based on the current planned mitigation these emissions will not result in any exceedances of the air quality standards at the representative receptor locations, except for a slight exceedance of PM_{2.5} at the southern end of Long Lake. This phase of the Project will also result in fugitive dust emissions, however, based on the current planned mitigation these emissions will not result in any measurable change in baseline soil quality at the representative receptor locations nor will the predicted dust fall result in any measurable accumulation of metals in vegetation at the representative receptor locations.

During the operation and maintenance phase, potential adverse effects to surface water resources include changes to drainage patterns, changes to flow regimes, water and sediment quality.

The Project will result in employment opportunities and associated income benefits which will have an overall beneficial effect on the quality of life in western Labrador.

Increased drug and alcohol abuse and criminal activity may at times be associated with major development projects, and the region has been seeing increases in these and other issues in recent years.

Mitigation Measures

Alderon will implement mitigation measures related to avoiding or reducing effects on atmospheric environment, water resources, vegetation, soils, viewsapes and other relevant biophysical and socioeconomic VECs. These measures will mitigate potential effects on both physical health and community health.

Alderon will offer a comprehensive Employee Assistance Program to provide support to workers, and will comply with the relevant provisions of any concluded benefits agreement respecting workplace policies and conditions.

Residual Environmental Effects

Given the implementation of mitigation measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions.

7.2.13 Economy, Employment and Business

Economy, Employment and Business was chosen as a VEC because the Project's influence on the economy, on employment, and on business is fundamental to assessing socio-economic implications for the lives of local residents and of revenues to governments. Baseline research was based on geographic data regions used by Statistics Canada and the Newfoundland and Labrador Statistics Agency. The main information sources included Statistics Canada, the Newfoundland and Labrador Statistics Agency and its Community Accounts website, provincial and municipal governments, training institutions, regional economic development boards, and other public agencies. Using these information sources, the baseline conditions were characterized for existing employment and income conditions, skilled and unskilled labour supply, employment equity and diversity including



potentially under-represented groups, income levels, sources of income, business and industry profile, tourism related activities and business capacity.

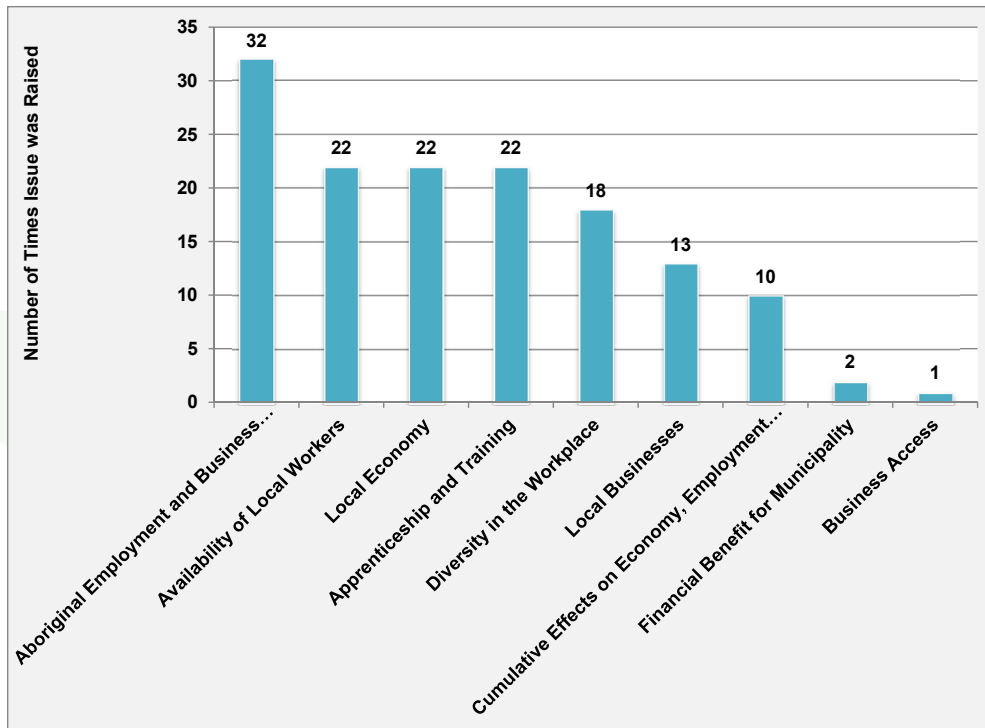
Economy, Employment and Business Regional Study Areas



Issues

Potential issues of concern related to Economy, Employment and Business include Aboriginal employment and business opportunities, availability of local workers, local economy, apprenticeship and training, diversity in the workplace, potential effects on local businesses, cumulative effects, financial benefit for municipality, and business access. Alderon will address these issues in the Project Benefits Plan and Diversity Plan. A complete record of all comments with responses is included in *Appendix B*.

Frequency of issues raised during engagement activities



Potential Environmental Effects

The Project will affect Economy, Employment and Business through expenditures on supplies and services and employment. The direct, indirect and induced effects of Project spending, together with business taxes, royalties and grants in lieu, will also contribute to municipal and Newfoundland and Labrador revenues. An independent economic assessment estimates that the Project will contribute \$26 billion to the provincial GDP. During construction and operations, the Project will result in 39,810 person-years of direct, indirect and induced employment, of which 17,916 will occur in western Labrador. The Project will also result in \$2.7 billion in direct, indirect, and induced incomes to workers and local businesses. The Project will generate \$4.3 billion in tax revenues to Newfoundland and Labrador and \$3.5 billion to the federal government.

Mitigation Measures

The majority of effects management for Project-related effects related to changes in economy, employment and business will be established in the Project Benefits Plan and Diversity Plan. They will contain effects management initiatives and related outcome targets that will be subject to negotiation with the Government of Newfoundland and Labrador.

Residual Environmental Effects

Given the implementation of mitigation/effects management measures, the Project is not likely to result in significant adverse environmental effects under normal operating conditions. The overall residual effects of the Project on Economy, Employment and Business are predicted to be positive, given the nature of the Project and the use of effects management approaches and measures described Alderon's Project Benefits Plan and Diversity Plan. Economy, Employment and Business represent the primary means by which the Project will deliver benefits to adjacent communities and to the region and province within which it is located.

7.3 Effects of the Environment on the Project

7.3.1 Method and Approach

The Local Study Area for the purpose of assessing the effects of the environment on the Project is the watershed areas that are upstream of the Project features (mine, mill, waste disposal areas, conveyors, roads, and rail). This was selected as the study area for most of the environmental factors because water (water supply, flooding, and ice) will have the greatest potential effect on the Project as determined within the distinct subwatersheds. Other environmental factors such as climate and geology (including seismicity) are described for a larger area because the effects are transient (such as weather) or more widely felt (such as seismicity). The effects of these events on the Project were assessed.

7.3.2 Issues

No comments or issues related to effects of the environment on the Project were raised during Alderon’s engagement activities. A complete record of all comments with responses is included in *Appendix B*.

7.3.3 Potential Environmental Effects

Effects of the environment on the Project considers how local conditions and natural hazards, such as severe and/or extreme weather conditions and external events (flooding, ice jams, rock slides, landslides, fire, outflow conditions and seismic events) could adversely affect the Project and how this in turn could affect the environment (such as environmental emergencies due to extreme environmental conditions).

Environmental Condition	Potential Effects
Temperature	<ul style="list-style-type: none"> • Deep frost ground penetration. • Ice depths can constrain the intake and discharge depth / location of water supply and effluent discharge lines as well as the orientation of intake screens and effluent diffusers. The location and depth of water supply and discharge lines will be designed to avoid ice.
Precipitation	<ul style="list-style-type: none"> • Long and extensive precipitation storage as snow during winter requiring snow clearing / plowing capacity. • Long and extensive snowpack accumulation in the TMF may tie up surface water availability for reclaim purposes. Long Lake will be used as a source for processing water when reclaim water supply is limited. • Snowfall accumulations can be large due to little winter snow ablation and minimal sublimation and therefore the Project will account for large structural snow loads. • Extreme rain events could result in flooding
Long Term Climate Change	<ul style="list-style-type: none"> • Potential effects of climate change on operation of the Project would be primarily related to increases in the frequency of adverse weather events and changes in precipitation. • Increases in extreme weather events could potentially affect operation of the Project by increasing unscheduled maintenance due to storm damage. • The mine and process plant water supply will be extracted from nearby Long Lake, decreases in the local precipitation and water table, if they occur, could adversely affect the Project’s water supply.
Seismicity	<ul style="list-style-type: none"> • Geological hazards and disasters including landslides, avalanches, rockfalls, and coastal flooding as a result of seismic activity offshore.

7.3.4 Mitigation Measures

The primary mitigation is sound planning. All engineering design will adhere to national and international standards. These standards document the proper engineering design for site-specific normal and extreme physical environmental conditions and provide design criteria that the regulatory agencies consider satisfactory for withstanding the potential physical environmental conditions. Building codes consider physical environmental criteria such as temperature, wind, snow, and ice loading, and drainage. In addition, the design life is taken into consideration so that materials are chosen with sufficient durability and corrosion resistance.

7.3.5 Residual Environmental Effects

Planning and design of the Project has and will continue to consider extreme climatic, hydrologic, and geohazard criteria. Experience of other iron ore mines in the area, in combination with prescribed codes and standards, provides a high level of confidence that environmental conditions are not likely to significantly affect the Project. Site monitoring will be undertaken to identify potential problems and verify effective mitigations. As such, no significant adverse effects of the environment on the Project are anticipated.

7.4 Effects of Possible Accidents or Malfunctions

7.4.1 Method and Approach

The potential environmental effects of each potential Accident and Malfunction was assessed for each VEC, based on the existing conditions of each VEC and existing knowledge about the environmental effects of the accidental events. Four accidental event scenarios have been assessed for the Project including train derailment, forest fire, dyke breach, and premature shutdown.

7.4.2 Issues

Throughout its consultation and engagement process, Alderon has listened to questions and concerns expressed by Aboriginal groups, stakeholders and the public. Alderon has heard from several individuals who have expressed concern about the rail line that will pass through the water supply for the town of Wabush, and the potential for a train derailment that could result in adverse environmental effects to their water supply. Other concerns expressed about accidental events included the discharge of untreated effluent into Duley (Long) Lake and systems to inform resident of Fermont, Québec, in the event of an accident at the Project site. Alderon will develop an Emergency Response Plan prior to the initiation of the construction phase. A complete record of all comments with responses is included in *Appendix B*.

7.4.3 Potential Environmental Effects

Potential accidents and malfunctions that may occur as a result of Project activities are identified and assessed for the five reasonable worst case scenarios.

Train Derailment

Fuel will be transported along the rail line to the Project site and ore concentrate will be transported from the Project site to the QNS&L railway. There is potential, in the event of a train derailment, that fuel and/or iron ore concentrate could be deposited along and adjacent to the rail line right-of-way. The rail network serving Labrador has a good safety record and the performance suggests that the likelihood of a rail spill of fuel or derailment fuel is low.

Forest Fire

Although unlikely, Project activities involving the use of heat or flame could result in a fire. The extent and duration of a resulting fire would be dependent on response efforts and meteorological conditions. A Fire Suppression Water Supply will be extracted from Long Lake and will be kept pressurized at the pumping station near the concentrator area. Staff will be trained to prevent and control fires. A plan for preventing and combating forest fires will be incorporated into the Emergency Response Plan.

Dyke Breach

There is potential of a breach at the polishing pond dyke which may release effluent into the downstream environment. To mitigate the potential accidental event or malfunction from occurring, the dykes located at the Tailings Management Facility will be designed to standards of the Canadian Dam Association (CDA) Dam Safety Guidelines. The CDA Dam Safety Guidelines will be used to guide the hazard consequence assessment process and associated design standards for the dykes at the Tailings Management Facility.

Premature or Permanent Shutdown

It is currently planned that the mine will be operational until approximately the end of 2033, at which time closure and rehabilitation will commence. However, should market conditions change or other factors arise that result in the premature shutdown of the mine, regulatory requirements include provision for financial assurance from Alderon. All events associated with activities included in the Development Plan, the Rehabilitation and Closure Plan, as well as those activities required for ongoing site monitoring and maintenance are included in financial assurance coverage.

7.4.4 Mitigation Measures

In the unlikely event of any of these scenarios, adverse environmental effects could result. An Emergency Response Plan will be developed prior to initiation of construction activities and will include detailed measures for responding to the accidents and malfunctions listed above. With the exception of a forest fire, it is not expected that the assessed accidents and malfunctions would affect both jurisdictions because the effects of a spill would be contained within the affected watershed, and would not migrate from Labrador to Québec. In the event of a forest fire that could affect both jurisdictions, Alderon will notify all relevant agencies; however, there is low likelihood of a Project-related forest fire occurring.

7.4.5 Residual Effects

Accidents and malfunctions by definition have a very low likelihood of occurring, and accordingly the environmental effects of accidents and malfunctions, including those that would be significant if they were to occur, have a low likelihood of occurring.

7.5 Effects on Capacity of Renewable Resources

A required component of a comprehensive study is to “address the capacity of renewable resources that are likely to be significantly affected by the project to meet the needs of the present and the future”. Renewable resources that may be affected by the Project are:

- Water resources;
- Wetlands;
- Fish and fish habitat;
- Waterfowl and other wildlife.

With consideration in Project design and implementation of mitigation measures, there are no likely significant adverse effects, and as a result, adverse Project effects on the capacity of renewable resources to meet the needs of the present and those of the future are not anticipated.

7.6 Cumulative Environmental Effects

7.6.1 Approach

The overall effect on each VEC as a result of the Project’s residual environmental effects in combination with the environmental effects of other relevant projects and activities that have been or will be carried out was assessed. Cumulative environmental effects were assessed in the Regional Study Area specific to each VEC (i.e., the spatial boundaries in which cumulative environmental effects are predicted to occur), and the assessment focuses on the degree of change from baseline VEC conditions resulting from the Project acting in combination with other relevant on-going and future projects.

7.6.2 Scoping

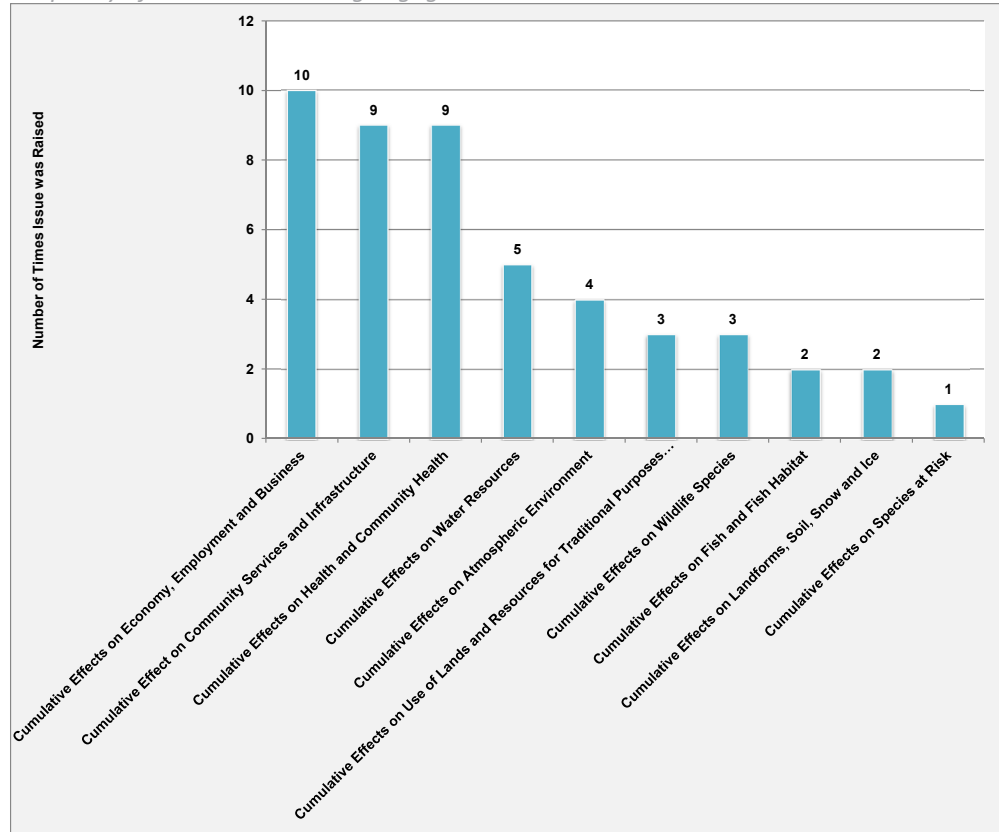
On-going and reasonably foreseeable future projects with environmental effects that are likely to overlap in space and time with those of the Project include:

- Labrador Operations (existing and planned expansions) – Iron Ore Company (IOC) of Canada;
- Wabush Mines - Cliffs Resources;
- Mont Wright Mine - ArcelorMittal;
- Bloom Lake Mine and Rail Spur - Cliffs Resources;
- Schefferville Iron Ore Mine - Labrador Iron Mines;
- DSO Iron Ore Project - Tata Steel (formerly New Millennium);
- Lower Churchill Generation Project;
- Infrastructure or other projects at the Port of Sept-Iles.

7.6.3 Issues

Issues identified during consultation and engagement activities that relate to cumulative effects are shown in the figure below. The issues raised most frequently by participants include cumulative effects to Economy, Employment and Business, cumulative effects to Community Services and Infrastructure, and cumulative effects to Health and Community Health. Issues identified during consultation and engagement activities that relate to cumulative effects are presented in *Appendix B*. Alderon is participating in the Labrador West Regional Task Force to manage effects collaboratively with local mining companies, municipalities and governments. The mitigation and effects management measures proposed by Alderon will mitigate the overall cumulative effect of the Project in combination with other projects and activities.

Frequency of issues raised during engagement activities



7.6.4 Potential Cumulative Effects

On-going and reasonably foreseeable future projects that are likely to overlap in space and time with those of the Kami Project are identified in the table below as a “Y” to represent a cumulative effect on the VEC.

Name of Project/ Activity	Atmospheric Environment	Landforms, Soils, Snow and Ice	Water Resources	Wetlands	Freshwater Fish, Fish Habitat and Mortality and Fisheries	Birds, Other Wildlife and Their Habitats, and Protected Areas	Species at Risk and Species of Conservation Concern	Historic and Cultural Resources	Current Use of Lands and Resources for Traditional Purposes by Aboriginal Persons	Other Current Use of Lands and Resources	Community Services and Infrastructure	Health and Community Health	Economy, Employment and Business
Labrador Operations (existing and planned expansions) – Iron Ore Company of Canada	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Wabush Mines - Cliffs Resources	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Mont Wright Mine - ArcelorMital	N	Y	N	N	N	Y	Y	N	Y	Y	Y	N	N
Bloom Lake Mine and Rail Spur - Cliffs Resources	Y	Y	N	Y	N	Y	Y	N	Y	Y	Y	N	N
Schefferville Iron Ore Mine - Labrador Iron Mines	N	N	N	N	N	Y	Y	N	Y	N	Y	N	Y
DSO Iron Ore Project - Tata Steel (formerly New Millennium)	N	N	N	N	N	Y	Y	N	Y	N	Y	N	Y
Lower Churchill Hydroelectric Generation Project	N	N	N	N	N	Y	N	N	Y	N	N	N	Y
Infrastructure or other projects at the Port of Sept-Îles	N	N	N	N	N	Y	N	N	Y	N	N	N	N
Urbanization	N	Y	N	Y	Y	Y	Y	N	Y	Y	N	N	N

7.6.5 Mitigation Measures

The mitigation and effects management measures proposed by Alderon will mitigate the overall cumulative effect of the Project in combination with other projects and activities. In addition, Alderon is participating in the Labrador West Regional Task Force and the Labrador West Community Advisory Panel to manage effects collaboratively with local mining companies, municipalities and governments. The groups serve to identify ways in which multiple stakeholders may collaborate to manage impacts upon the communities of Labrador City and Wabush arising from the rapid growth of the local mining industry.

7.6.6 Residual Effects

The cumulative effects of other projects and activities with the Kami Mine Project were deemed not significant. Current and future activities are subject to regulatory approval processes and standard mitigation measures which would limit adverse effects. The Project has the potential to cumulatively interact with past, present or future projects, resulting in cumulative effects to: Atmospheric Environment; Landforms, Soils, Snow and Ice; Wetlands; Freshwater Fish, Fish Habitat, and Fisheries; Birds, Other Wildlife and Their Habitats, and Protected Areas; Species at Risk and Species of Conservation Concern; Current Use of Lands and Resources for Traditional Purposes by Aboriginal Persons; Other Current Use of Lands and Resources; Community Services and Infrastructure; Health and Community Health; and Economy, Employment and Business. However, given the mitigation proposed for this Project which will prevent or minimize adverse environmental effects, cumulative effects are predicted to be not significant for all VECs.



8.0 FOLLOW-UP PROGRAM

A follow-up and monitoring program will be designed and conducted, as appropriate, during all phases of the Project.

The purpose of the follow-up program is to verify the accuracy of the predictions made in the environmental assessment as well as the effectiveness of the mitigation measures. Follow-up programs are proposed in those cases where there is uncertainty effects prediction due to the nature of the effect (i.e., unique or relatively unknown) or lack of information. Follow-up program results will be used to refine and optimize mitigation measures and implement adaptive management measures associated with the Project.

The proposed follow-up and monitoring programs are summarized below.

VEC	Commitment
Atmospheric Environment	<ul style="list-style-type: none"> • Ambient air monitoring at the facility boundary and within the nearest communities • Annual monitoring of GHG emissions and reporting to Environment Canada • Sound pressure level monitoring during both construction and operation
Landforms, Soils, Snow and Ice	<ul style="list-style-type: none"> • Monitoring cut and fill locations have been placed, as well as any stream crossings for drainage conditions • Personnel will supervise soil stripping, stockpiling, and replacement operations • Volumes of stockpiled soil will be measured and tracked from salvage to replacement • Soil stockpiles will be monitored to ensure erosion control and re-vegetation measures are effective and proper signage is in place • Vegetation growth and erosion will be monitored on replaced soils against reclamation standards • Regular checks of snow fences will be completed from November to April to ensure that fences are properly placed and functioning properly • Monitor runoff from stockpiles, discharge from TMF, and mine water from the pit for pH, TDS, sulfate, and dissolved metals, as per MMER and the NL Environmental Control Water and Sewage Regulations
Water Resources	<ul style="list-style-type: none"> • Surface water quantity monitoring during construction, operations and closure • Surface water quality monitoring during construction, operations and closure • Establishment of water quantity withdrawal / discharge thresholds • Establishment of water balance restoration targets • Erosion / sedimentation monitoring • Restoration of drainage patterns at closure • Monitoring of channel and water feature naturalization • Monitoring of OPM filling • Install permanent monitoring wells at OPM, TMF and select mine facilities • Monitoring of groundwater chemistry and water levels • Perimeter and off-site water level monitoring (OPM, TMF, site) • OPM sump discharge monitoring • Water quality monitoring (TMF, OPM Inflows) • Emergency response for spills • Post decommissioning monitoring of water levels near Rose Pit • Post decommissioning monitoring of groundwater chemistry near TMF
Wetlands	<ul style="list-style-type: none"> • Compliance monitoring will be conducted to confirm that wetland mitigation measures are appropriately implemented

VEC	Commitment
Fish, Fish Habitat and Fisheries	<ul style="list-style-type: none"> Monitoring compliance with Compensation Plan Water quality and biota sampling as per MMER requirements
Birds, Other Wildlife and Their Habitats, and Protected Areas	<ul style="list-style-type: none"> Compliance monitoring will be conducted to confirm that mitigation measures are appropriately implemented Monitor for compliance with mitigation measures Variety of monitoring and education initiatives
Species at Risk and Species of Conservation Concern	<ul style="list-style-type: none"> Compliance monitoring will be conducted to confirm that mitigation measures are appropriately implemented
Historic and Cultural Resources	<ul style="list-style-type: none"> Compliance monitoring will be conducted to confirm that mitigation measures are appropriately implemented
Current Use of Lands and Resources by Aboriginal Persons for Traditional Purposes	<ul style="list-style-type: none"> On-going engagement with Aboriginal communities and organizations
Other Current Use of Lands and Resources	<ul style="list-style-type: none"> Continue engagement with local resource user groups such as the local snowmobile club and cross country ski club On-going engagement with cabin owners On-going liaison with municipalities
Community Services and Infrastructure	<ul style="list-style-type: none"> Engagement with local authorities and provide updates on Project activities and plans on a regular basis Alderon will, as appropriate, support and participate in the formation of a joint monitoring initiative which would include the towns of Wabush, Labrador City and Fermont Engage with the relevant agencies and organizations, particularly the Labrador West Regional Task Force and the Labrador West Community Advisory Panel, to provide Project information and to identify and discuss potential Project-related implications for local services and infrastructure, including those of Project-related in-migration
Health and Community Health	<ul style="list-style-type: none"> Continue to work with local and regional communities and agencies and service providers to identify and plan for any associated issues, including through the provision of up-to-date project information and schedules. This will include its continued participation in the Labrador West Community Advisory Panel, and the Labrador West Regional Task Force.
Economy, Employment and Business	<ul style="list-style-type: none"> Monitor and Report on Project Benefits and Diversity Plan performance, such as success in meeting targets, as detailed in the Benefits Agreement, Benefits Plan and Diversity Plan Support and participate in the formation of a joint monitoring initiative which would include the towns of Wabush, Labrador City and Fermont, as appropriate

9.0 BENEFITS OF THE EA TO CANADIANS

In addition to meeting regulatory requirements, this environmental assessment process has resulted in various benefits to Canadians. This includes maximized environmental benefits, supporting sustainable development, public participation, increases in scientific knowledge and community and social benefits. Examples of how the environmental assessment process for this Project benefits Canadians is presented below.

Factors of EA Process Providing Benefits to Canadians	Commitment
Maximized Environmental Benefits	<ul style="list-style-type: none"> The Project access route was changed, and a new road is to be constructed in order to eliminate the potential for traffic congestion along Grenfell Drive in Wabush. The Rose South Waste Rock Disposal Area was originally planned to be located adjacent to the pit and closer to the town of Fermont, Québec. In response to public requests and their concerns over potential environmental effects to the town and its residents, Alderon has relocated the waste rock disposal area approximately 5 km to the east. The TMF was sited to avoid waterbodies, to the extent possible. Through an environmental constraints analysis conducted at an early stage in the EA process, Project components were located to avoid, where economically and technically feasible, environmentally sensitive areas such as lakes and the Duley Lake Provincial Park Reserve. As such, environmental effects on these features were minimized by avoidance. Use of non-conventional technologies is not required to minimize environmental effects.
Supporting Sustainable Development	<ul style="list-style-type: none"> The Project is being designed and will be constructed and operated in consideration of progressive rehabilitation and future closure and reclamation.
Public Participation	<ul style="list-style-type: none"> Public input has influenced the design of the Project in several major ways. As noted above, the Project access route was changed to avoid Grenfell Drive in Wabush as a result of public concern over increased traffic congestion. Project planning in response to public input will also result in decreased nuisance and improved visual aesthetics for residents of the town of Fermont as a result of relocating the waste rock disposal area several kilometres to the east and away from the town.
Increases in Scientific Knowledge	<ul style="list-style-type: none"> The understanding of the existing environment within and surrounding the Project area has been greatly improved as a result of baseline studies conducted in support of the EA.
Community and Social Benefits	<ul style="list-style-type: none"> A Benefits Plan and a Diversity Plan have been developed as part of the EA process so that Project benefits are optimized.

10.0 OVERALL CONCLUSIONS OF THE PROPONENT

The Kami Mine Project has been designed and will be undertaken to mitigate adverse environmental effects to acceptable levels.

Concerns that have raised by Aboriginal groups and the public, and the requirements prescribed in the EIS Guidelines have been addressed by assessing the environmental effects that will or may result from the construction, operation and maintenance, and decommissioning and reclamation of the Project.

The Kami Project will result in positive effects to the local and provincial economy, employment and business.

In summary, the Project will not result in likely adverse residual significant effects, in isolation or cumulatively with other projects and activities. Accidents and malfunctions, should they occur, may result in significant effects for some VECs; however these are not likely to occur given the planning that has been undertaken, and the standards that have been prescribed.

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Appendix A

VEC Summary Tables and Residual Effects Summary Matrices

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Table A.1

Summary of Project Residual Environmental Effects: Atmospheric Environment

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Air Quality											
Construction	<ul style="list-style-type: none"> Fugitive dust suppression programs. Equipment preventative maintenance programs. Dust control for the crusher buildings and all conveyor transfer points. Covered Conveyors, as required. Use qualified blasting contractors with blast design plans that incorporate dust emission controls. Progressive reclamation on the waste rock piles and TMF. Limit on-site speed to 50 km/h. 	A	M	L	ST	R	R	D	N	H	<ul style="list-style-type: none"> Ambient air quality monitoring.
Operation and Maintenance		A	M	L	MT	C	R	D	N	H	
Decommissioning and Reclamation		A	M	L	ST	R	R	D	N	H	
Change in GHG Emissions											
Construction	<ul style="list-style-type: none"> Equipment idling policy. Equipment preventative maintenance programs. Implementation of a GHG Management Plan. 	A	M	G	ST	R	R	D	N	H	<ul style="list-style-type: none"> Annual monitoring of GHG emissions and reporting to Environment Canada.
Operation and Maintenance		A	M	G	MT	C	R	D	N	H	
Decommissioning and Reclamation		A	M	G	ST	R	R	D	N	H	
Change in Acoustic Environment											
Construction	<ul style="list-style-type: none"> Use of mufflers on construction equipment. Adherence to equipment maintenance programs. Maintain a vegetation buffer between the Project and nearby residents and cabins. Limit train speed to 50 km/h or less. 	A	M	L	ST	R	R	D	N	H	<ul style="list-style-type: none"> Sound pressure level monitoring during both construction and operation.
Operation and Maintenance		A	M	L	MT	C	R	D	N	H	
Decommissioning and Reclamation		A	M	L	ST	R	R	D	N	H	
Change in Vibrations											
Construction	<ul style="list-style-type: none"> Adherence to equipment maintenance programs. Limit train speed to 50 km/h or less. Use of continuous welded track and ballast system. 	A	L	L	ST	S	R	D	N	H	<ul style="list-style-type: none"> Vibration monitoring will be conducted along rail route located nearest the cabins and in residential areas as appropriate.
Operation and Maintenance		A	M	L	MT	S	R	D	N	H	
Decommissioning and Reclamation		A	L	L	ST	S	R	D	N	H	

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Light Emissions											
Construction	<ul style="list-style-type: none"> Direct light where needed. Retain a vegetation screen, where possible. Locate portable lighting equipment where not visible in surrounding urban areas. Use of full horizontal cut off light fixtures, as appropriate. 	A	L	L	ST	S	R	D	N	H	
Operation and Maintenance		A	L	L	MT	R	R	D	N	H	
Decommissioning and Reclamation		A	L	L	ST	S	R	D	N	H	

Key:

<p>Direction:</p> <p>P Adverse: condition of the atmospheric resources is worsening in comparison to baseline conditions and trends.</p> <p>P Positive: condition of the atmospheric resources is improving in comparison to baseline conditions and trends.</p> <p>N Neutral: no change in the condition of the atmospheric resources compared to baseline conditions and trends.</p> <p>Magnitude:</p> <p>N Negligible: no measurable adverse effect anticipated.</p> <p>L Low: effect occurs that is detectable but is within normal variability of baseline conditions.</p> <p>M Moderate: effect occurs that would cause an increase with regard to baseline but is within regulatory limits and objectives.</p> <p>H High: effect occurs that would singly or as a substantial contribution in combination with other sources cause exceedances of objectives or standards beyond the Project boundaries.</p>	<p>Geographic Extent:</p> <p>S Site-specific: effect restricted to the Project footprint within the LSA.</p> <p>L Local: effect restricted to the LSA.</p> <p>R Regional: effect restricted to the RSA.</p> <p>G Global: Provincial, National or Global scale (GHG Emissions only).</p> <p>Duration:</p> <p>ST Short-term: effect occurs for less than two years.</p> <p>MT Medium-term: effect occurs for between 2 and 15 years.</p> <p>LT Long-term: effect persists beyond 15 years.</p> <p>P Permanent: will not change back to original condition .</p> <p>Frequency:</p> <p>O Once: effect occurs once.</p> <p>S Sporadic: effect occurs at sporadic intervals.</p> <p>R Regular: effect occurs on a regular basis and at regular intervals.</p> <p>C Frequently: effect occurs continuously throughout the Project life.</p>	<p>Reversibility:</p> <p>R Reversible: effect ceases when Project operations cease.</p> <p>O Irreversible: effect continues after Project operations cease.</p> <p>Environmental or Socio-economic Context:</p> <p>U Undisturbed: effect takes place within an area that is relatively or not adversely affected by human activity.</p> <p>D Developed: effect takes place within an area with human activity. Area has been substantially previously disturbed by human development or human development is still present.</p> <p>Significance:</p> <p>S Significant.</p> <p>N Not Significant.</p> <p>Prediction Confidence:</p> <p>Based on scientific information and statistical analysis, professional judgment and effectiveness of mitigation or effects management measure</p> <p>L Low level of confidence.</p> <p>M Moderate level of confidence.</p> <p>H High level of confidence.</p>
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Table A.2
Summary of Project Residual Environmental Effects:
Landforms, Soils, Snow and Ice, and ARD / ML

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Landforms and Terrain Stability											
Construction	<ul style="list-style-type: none"> Minimize use of esker material for aggregate use. Maintain existing drainage to the extent possible. 	A	L-H	S	M	S	I	N/A	N	H	<ul style="list-style-type: none"> Monitor for compliance with mitigation measures.
Operation and Maintenance		A	L	S	S	S	I	N/A	N	H	
Decommissioning and Reclamation		N	L	S	P	O	I	N/A	N	H	
Change in Soil Quality and Quantity											
Construction	<ul style="list-style-type: none"> Manage the collection and storage of soil stockpiles. Promote the vegetation of soil stockpiles to prevent erosion. Design surface drainage to prevent flooding of stockpile areas. Erosion control protocols will be followed. Volumes of soil stored in stockpiles will be measured and tracked from salvage to replacement. Progressive rehabilitation. Fugitive dust suppression programs 	A	L	L	MT	R	R	N/A	N	H	<ul style="list-style-type: none"> Monitor for compliance with mitigation measures.
Operation and Maintenance		A	L	L	MT	O	R	N/A	N	H	
Decommissioning and Reclamation		N	L	L	MT	R	R	N/A	N	H	
Change in Ice and Snow											
Construction	<ul style="list-style-type: none"> Design facilities and activities to minimize dust emissions. Use of snow fences and snow removal. Implementation of speed limits. Manage blasting so that the vibrations will not affect ice cover at nearby lakes. 	A	M	L	ST	R	R	N/A	N	M	<ul style="list-style-type: none"> Monitor for compliance with mitigation measures.
Operation and Maintenance		A	M	L	ST	R	R	N/A	N	M	
Decommissioning and Reclamation		A	L	L	M	R	I	N/A	N	H	
ARD/ML											
Construction	<ul style="list-style-type: none"> Effluent discharge will be treated to meet MMER discharge criteria. 	N	N	L	ST	C	I	U	N	M	<ul style="list-style-type: none"> Monitor for compliance with mitigation measures.
Operation and Maintenance		N	N	L	ST	C	I	U	N	M	
Decommissioning and Reclamation		N	N	L	ST	C	I	U	N	M	

Key:

<p>Direction: P Positive. A Adverse. N Neutral.</p> <p>Magnitude: N Negligible L Low: for landforms, minor changes to shape and stability from a regional perspective; for soils, changes of less than or equal to 5 percent. M Moderate: for landforms, moderate changes to shape and stability from a regional perspective; for soils, changes of 5 to 10 percent. H High: for landforms, a major change to shape and stability in the regional area; for soils, changes of greater than 10 percent.</p> <p>Geographic Extent: S Site: effect confined to the PDA and 200 m beyond. L Local: effect confined to the LSA. R Regional: effect extends beyond the LSA but within the RSA.</p>	<p>Duration: ST Short-term: effects last through the construction phase. MT Medium-term: effects last beyond the construction phase, but not beyond the end of Project decommissioning. LT Long-term: effects are measureable for up to 30 years beyond the life of the Project. P Permanent – effects will not change back to original condition.</p> <p>Frequency: O Once: effect occurs once. S Sporadic: effect occurs occasionally but not consistently throughout the life of the Project. R Regular: effect occurs at regular intervals throughout the life of the Project. C Continuous: effect occurs continuously throughout the Project.</p> <p>Reversibility: R Reversible: environment will likely recover to baseline conditions after the end of Project decommissioning. I Irreversible: environment is unlikely to recover to baseline conditions after the end of the Project decommissioning..</p>	<p>Environmental or Socio-economic Context: U Undisturbed: area relatively or not adversely affected by human activity. D Developed: area has been substantially previously disturbed by human development or human development is still present. N/A Not Applicable.</p> <p>Significance: S Significant. N Not Significant.</p> <p>Prediction Confidence: Based on scientific information and statistical analysis, professional judgment and effectiveness of mitigation or effects management measure L Low level of confidence. M Moderate level of confidence. H High level of confidence.</p>
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Table A.3

Summary of Project Residual Environmental Effects: Water Resources

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Surface Water Quantity											
Construction	<ul style="list-style-type: none"> Implement progressive rehabilitation. Optimize water harvesting and re-use . Restore existing water balance conditions, to the extent feasible. Refer to Table 16.52 for detailed mitigation list. 	A	L	S	ST	R	R	U	N	H	<ul style="list-style-type: none"> Surface water quantity (water level) monitoring during construction, operations and closure.
Operation and Maintenance		A	L	L	MT	R	R	U	N	H	
Decommissioning and Reclamation		P	L	S	ST	O	R	U	N	H	
Change in Surface Water Quality											
Construction	<ul style="list-style-type: none"> Implement erosion and sedimentation controls. Use of appropriately sized sedimentation ditches and ponds. Ammonia contamination management. Implement effluent treatment, including red water control as per options outlined in the Project Description. Restore natural drainage patterns and maintain or restore existing water balance condition, to the extent feasible. Manage effluent treatment to meet MMER and NL ECWSR discharge limits. Refer to Table 16.52 for detailed mitigation list. 	A	L	S	ST	S	R	U	N	H	<ul style="list-style-type: none"> Surface water quality monitoring during construction, operations and closure.
Operation and Maintenance		A	L	L	MT	R	R	U	N	H	
Decommissioning and Reclamation		A	L	S	ST	S	R	U	N	H	
Change in Surface Water Drainage Patterns											
Construction	<ul style="list-style-type: none"> Minimize drainage interactions and alterations. Construct open pit mine headwater pipeline. Construct open pit mine and waste rock disposal area perimeter ditches. Construct access roads and rail line cross drainage. Restore natural drainage patterns and maintain or restore existing water balance conditions, to the extent feasible. Refer to Table 16.52 for detailed mitigation list. 	A	L	S	ST	R	R	U	N	H	<ul style="list-style-type: none"> Compliance monitoring of mitigation.
Operation and Maintenance		A	L	S	MT	R	R	U	N	H	
Decommissioning and Reclamation		P	L	S	ST	S	R	U	N	H	

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics										Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence		
Change in Groundwater Quality or Quantity												
Construction	<ul style="list-style-type: none"> Best management practices. Blast monitoring. 	A	L	S	ST	S	R	U	N	H	<ul style="list-style-type: none"> Groundwater monitoring wells to monitor water levels, flows and chemistry. 	
Operation and Maintenance	<ul style="list-style-type: none"> Implement best management practices. Refer to proposed monitoring. 	A	L	L	MT	R	R	U	N	H		
Decommissioning and Reclamation	<ul style="list-style-type: none"> Open pit mine flooding. 	P	L	S	ST	O	R	U	N	H		

Key:

<p>Direction:</p> <p>P Positive: condition of Water Resources is improving in comparison to baseline conditions and trends.</p> <p>A Adverse: condition of Water Resources is declining in comparison to baseline conditions and trends.</p> <p>N Neutral: no change in the condition of Water Resources compared to baseline conditions and trends.</p> <p>Magnitude:</p> <p>N Negligible: no measurable effect anticipated.</p> <p>L Low: effect occurs that is detectable but is within normal variability of baseline conditions.</p> <p>M Moderate: effect occurs that would cause an increase with regard to baseline but is within regulatory limits and objectives.</p> <p>H High: effect occurs that would singly or as a substantial contribution in combination with other sources cause exceedances or objectives or standards within the Project RSA.</p> <p>Geographic Extent:</p> <p>S Site-specific: effect restricted to the Project footprint within the LSA.</p> <p>L Local: effect restricted to the LSA.</p> <p>R Regional: effect restricted to the RSA.</p>	<p>Duration:</p> <p>ST Short-term: effect occurs for less than two years.</p> <p>MT Medium-term: effect occurs for between three and 20 years.</p> <p>LT Long-term: effect persists beyond 20 years.</p> <p>P Permanent: will not change back to original condition.</p> <p>Frequency:</p> <p>O Occasionally: effect occurs once per month or less.</p> <p>S Sporadic: effect occurs sporadically at irregular intervals.</p> <p>R Rarely: effect occurs on a regular basis and at regular intervals.</p> <p>C Continuous: effect occurs continuously throughout the Project life.</p> <p>Reversibility:</p> <p>R Reversible: effect ceases when Project operations cease.</p> <p>I Irreversible: effect continues after Project operations cease.</p>	<p>Ecological or Socio-economic Context:</p> <p>U Undisturbed: effect takes place within an area that is relatively or not adversely affected by human activity.</p> <p>D Developed: effect takes place within an area with human activity. Area has been substantially previously disturbed by human development or human development is still present.</p> <p>N/A Not Applicable.</p> <p>Significance:</p> <p>S Significant.</p> <p>N Not Significant.</p> <p>Prediction Confidence:</p> <p>Based on scientific information and statistical analysis, professional judgment and effectiveness of mitigation or effects management measure</p> <p>L Low level of confidence.</p> <p>M Moderate level of confidence.</p> <p>H High level of confidence.</p>
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Table A.4
Summary of Project Residual Environmental Effects: Wetlands

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Wetland Quality and Quantity											
Construction	<ul style="list-style-type: none"> Minimize wetland loss and restrict construction activities to the PDA. Comply with provincial and federal legislation, permits, approvals and guidelines. Maintain hydrology at stream crossings. Maintain natural drainage, where possible. Erosion and sediment control. Invasive species management. Progressive reclamation, including wetland restoration. Corporate Stewardship Agreement. 	A	M	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor implementation of mitigation measures.
Operation and Maintenance	<ul style="list-style-type: none"> Comply with provincial and federal legislation, permits, approvals and guidelines. Erosion and sediment control. Invasive species management. Progressive reclamation, including wetland restoration. Wetland Stewardship Agreement. 	A	L	S	LT	C	I	D	N	H	<ul style="list-style-type: none"> Monitor implementation of mitigation measures.
Decommissioning and Reclamation	<ul style="list-style-type: none"> Comply with provincial and federal legislation, permits, approvals and guidelines. Erosion and sediment control. Invasive species management. 	A/P	M	S	LT	O	I	D	N	H	<ul style="list-style-type: none"> Monitor implementation of mitigation measures.

Key:

<p>Direction: P Positive. A Adverse. N Neutral.</p> <p>Magnitude: L Low: the residual Project effects to wetlands (alteration/loss) are not expected to exceed 5 percent of the total area of wetland in the RSA. M Moderate: the residual Project effects to wetlands (alteration/loss) are expected to be greater than 5 percent and not exceed 25 percent of the total area of wetland in the RSA. H High: the residual Project effects to wetlands (alteration/loss) are expected to exceed 25 percent of the total area of wetland in the RSA. Effect can be easily observed, measured and described, and may be widespread.</p> <p>Geographic Extent: S Site-specific: Effect confined to the footprint for all Project features (i.e., PDA). Effects limited to directly affected wetlands. L Local: Effect extends beyond the Project footprint into the surrounding areas (LSA), including potentially affected wetland communities within 1 km of the mineral license. R Regional: Effect extends into the RSA. Area where indirect or cumulative effects may occur. B Effect extends beyond the regional study area. Area where indirect or cumulative effects may occur.</p>	<p>Duration: ST Short-term Effect occurs during the site-preparation or construction phase of the Project (i.e., 1 to 2 years). MT Medium-term Effect extends throughout the construction and operation phases of the Project (up to 17 years). LT Long-term Effect is greater than 17 years. P Permanent Effect persists.</p> <p>Frequency: O Once Effect occurs occasionally, or once during the life of the Project (e.g., clearing). S Sporadic Effect occurs sporadically, at irregular intervals, without any predictable pattern during the life of the Project (e.g., hydrocarbon spills). R Regular Effect occurs on a regular basis and at regular intervals during the life of the Project. C Continuous Effect occurs continuously.</p> <p>Reversibility: R Reversible Effect is reversible during the life of the Project. I Irreversible A long-term effect that is permanent (i.e., remains indefinite as a residual effect).</p>	<p>Environmental or Socio-economic Context: U Undisturbed: Area relatively or not adversely affected by human activity. D Developed: Area has been substantially previously disturbed by human development or human development is still present. N/A Not Applicable.</p> <p>Significance: S Significant. N Not Significant.</p> <p>Prediction Confidence: L Low level of confidence. M Moderate level of confidence. H High level of confidence.</p>
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Table A.5
Summary of Project Residual Environmental Effects:
Freshwater Fish, Fish Habitat, and Fisheries

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics										Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence		
Change in Fish Habitat												
Construction	<ul style="list-style-type: none"> • Compensation Plan as required under <i>Fisheries Act</i> Authorization. 	N	L	S	P	C	I	U	N	H	<ul style="list-style-type: none"> • Fish habitat compensation monitoring under <i>Fisheries Act</i>. 	
Operation and Maintenance	<ul style="list-style-type: none"> • N/A 	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	H		
Decommissioning and Reclamation	<ul style="list-style-type: none"> • Any activities near/within waterbodies will most likely require review under the <i>Fisheries Act</i> at that time. 	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	H		
Fish Health or Mortality												
Construction	<ul style="list-style-type: none"> • Fish relocation. • Maintenance of flows. 	A	N	S	T	O	R	U	N	M	<ul style="list-style-type: none"> • Water quality sampling as per EPP/EEM requirements. 	
Operation and Maintenance	<ul style="list-style-type: none"> • Fish screens. • Blasting guidelines. • MMER regulations regarding discharges. 	N	N	L	T	C	R	D	N	M	<ul style="list-style-type: none"> • Water quality and biota sampling as per MMER requirements. 	
Decommissioning and Reclamation	<ul style="list-style-type: none"> • Any activities near/within waterbodies will most likely require review under the <i>Fisheries Act</i> at that time. 	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	H		
Change in Utilization of Existing Fisheries												
Construction	<ul style="list-style-type: none"> • Compensation Plan as required under <i>Fisheries Act</i> Authorization. 	A	N	L	L	C	I	U	N	H		
Operation and Maintenance	<ul style="list-style-type: none"> • N/A 	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	H		
Decommissioning and Reclamation	<ul style="list-style-type: none"> • N/A 	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	H		

Key:

<p>Direction:</p> <p>P Positive: condition is improving compared to baseline.</p> <p>N Neutral: no change compared to baseline.</p> <p>A Adverse: negative change compared to baseline.</p> <p>Magnitude:</p> <p>N Negligible: no measureable adverse effects anticipated.</p> <p>L Low: measureable effects anticipated in low-sensitivity habitats and no measureable reduction in the number of fish species anticipated.</p> <p>M Moderate: measureable effects anticipated in moderately sensitive habitat or anticipated mortality risk to non-listed species.</p> <p>H High: measureable effects anticipated in highly sensitive habitat or habitat designated as important to listed species or anticipated mortality risk to listed species.</p> <p>Geographic Extent:</p> <p>S Site Specific: effects restricted to PDA.</p> <p>L Local: effects extend beyond the PDA but remain within the LSA.</p> <p>R Regional: effects extend to the RSA.</p>	<p>Duration:</p> <p>T Temporary: effects are measureable for days to a few months.</p> <p>M Moderate: effects are measureable for up to a year but not multiple years.</p> <p>L Long-term: effects are measurable for multiple years but not permanent.</p> <p>P Permanent – effects are permanent.</p> <p>Frequency:</p> <p>O Once: effect occurs only one time.</p> <p>S Sporadic: effect occurs more than once at irregular intervals.</p> <p>R Regular: effect occurs on a regular basis and at regular intervals.</p> <p>C Continuous: effect occurs constantly.</p> <p>Reversibility:</p> <p>R Reversible: effect will cease during or after the Project is complete</p> <p>I Irreversible: effects will persist after the life of the Project, even after habitat restoration and compensation works</p> <p>Environmental Context:</p> <p>U Undisturbed: effect takes place in an area that has not been previously affected by human development.</p> <p>D Developed: effect takes place in an area that has been previously affected by human developed, in an area where human development is still present, or in an area previously disturbed by Project activities.</p>	<p>Significance:</p> <p>S Significant:</p> <ul style="list-style-type: none"> • A permanent and irreversible reduction in the productive capacity of fish habitat that remains after mitigation and compensation measures are implemented and which will likely result in an uncompensated HADD of fish habitat. • The likelihood of fish mortality, after mitigation measures are implemented, at a level that would require regulatory bodies to implement specific management plans for the recovery of the affected fish populations. • A significant measureable decrease in fish condition, below baseline conditions and directly attributable to Project activities, and which threatens the sustainability of the regional fisheries. • The Project is not compatible with recreational fishing activities, such that patterns of fishing are changes across the area. <p>N Not Significant.</p> <p>Prediction Confidence:</p> <p>Based on scientific information and statistical analysis, and effectiveness of mitigation or effects management measure</p> <p>L Low: biological processes not well understood, limited baseline data, predictive analysis not available, quantitative metrics limited, and mitigation measure effectiveness unknown.</p> <p>M Moderate: general biological processes understood, adequate baseline, some predictive analysis, quantitative metrics available, proven mitigation measures.</p> <p>H High: biological process well understood and predictable, adequate baseline and regional data, statistical and predictive modeling is proven, mitigation measures proven successful.</p>
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Table A.6
Summary of Project Residual Environmental Effects:
Birds, Other Wildlife and their Habitat; and Protected Areas

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics								Recommended Follow-up and Monitoring	
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance		Prediction Confidence
Change in Habitat											
Construction, Operation and Maintenance	<ul style="list-style-type: none"> Minimize construction footprint (i.e., PDA) to the extent feasible; Avoid sensitive species and their habitats to the extent feasible; Minimize disturbance and infilling within adjacent wetlands and maintain hydrological conditions to the extent feasible; Rehabilitate access routes that are no longer needed; Locate borrow pits more than 100 m away from the high water mark of water bodies, where feasible; Maintain natural buffers around wetlands and riparian zones; Dispose of slash from clearing, as specified in permits; Comply with provincial and federal legislation, permits, approvals and guidelines; Implement erosion and sediment control; Conduct invasive species management; Conduct progressive rehabilitation; and Implement an Avifauna Management Plan. Invasive species management. Progressive reclamation. 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance with mitigation measures.

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics								Recommended Follow-up and Monitoring	
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance		Prediction Confidence
Change in Distribution and Movement											
Construction, Operations and Maintenance, Decommissioning and Reclamation	<ul style="list-style-type: none"> • Implement an Avifauna Management Plan; • Minimize construction footprint (i.e., PDA) to the extent feasible. Avoid those locations of sensitive species to the extent feasible; • Restrict clearing activities to the period outside of the bird breeding bird season, whenever feasible; • Restrict clearing and other activities within 800 m of an active raptor nest, and within 200 m of an inactive nest; • Flag the boundaries of sensitive areas before commencing any work in the area; • Limit noise levels whenever feasible; • Allow wildlife to pass through construction sites without harassment; • Comply with all provincial and federal legislation, permits, approvals and guidelines; • Maintain hydrology at stream crossings through approved methods to install culverts; • Implement erosion and sediment control; • Conduct invasive species management; and • Conduct progressive rehabilitation 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> • Monitor for compliance of mitigation measures.
Change in Mortality Risk											
Construction	<ul style="list-style-type: none"> • Prohibit hunting or harassment of wildlife on Project site; • Implement Avifauna Management Plan to address incidental take; • Limit situations leading to potential collisions; • Use welding mats from April 1 to November 15 to prevent forest fires; • Dispose of all waste appropriately; • Limit lighting to that required for safe operation; • Shield exterior lights from above; and • Use motion sensors for security lighting 	A	L	S	ST	O	R	U/D	N	H	<ul style="list-style-type: none"> • None.

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Operation and Maintenance	<ul style="list-style-type: none"> Prohibit hunting or harassment of wildlife on Project site; Implement Avifauna Management Plan to address incidental take; Limit situations leading to potential collisions; Use welding mats from April 1 to November 15 to prevent forest fires; Dispose of all waste appropriately; Limit lighting to that required for safe operation; Shield exterior lights from above; and Use motion sensors for security lighting 	A	L	S	ST	O	R	U/D	N	H	• None.
Decommissioning and Reclamation	<ul style="list-style-type: none"> Prohibit hunting or harassment of wildlife on the Project site. Limit situations leading to potential collisions. 	A	L	S	ST	O	R	U/D	N	H	• None.
Change in Health											
Construction	<ul style="list-style-type: none"> Consider clearing by mulching and mechanized forestry equipment; Use best practices for fuels and other hazardous materials, e.g., herbicides; Implement various dust-control measures; Do not bury waste during progressive rehabilitation activities; Allow fuel trucks to travel only on approved access roads; Ensure equipment arrives on site free from fluid leaks; Inspect and maintain equipment on a regular schedule; and Establish a site for equipment maintenance, repair and cleaning that is at least 100 m from any lake, river, stream or wetland 	A	L	S	ST	R	I	U/D	N	H	• None.

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Operation and Maintenance	<ul style="list-style-type: none"> Consider clearing by mulching and mechanized forestry equipment; Use best practices for fuels and other hazardous materials, e.g., herbicides; Implement various dust-control measures; Do not bury waste during progressive rehabilitation activities; Allow fuel trucks to travel only on approved access roads; Ensure equipment arrives on site free from fluid leaks; Inspect and maintain equipment on a regular schedule; and Establish a site for equipment maintenance, repair and cleaning that is at least 100 m from any lake, river, stream or wetland. 	A	L	S	ST	R	I	U/D	N	H	<ul style="list-style-type: none"> None.
Decommissioning and Reclamation	<ul style="list-style-type: none"> Use best practices for fuels and other hazardous materials such as herbicides. Implement various dust control measures. 	A	L	S	ST	R	I	U/D	N	H	<ul style="list-style-type: none"> None.
Change in Protected Areas											
Construction	<ul style="list-style-type: none"> Measures listed for other potential Project effects will be employed; Establish a replacement protected area that performs the regional protection functions of the Pike Lake South Management area; and Establish a Corporate Stewardship Agreement. 	A	L	L	LT	C	I	U/D	N	H	<ul style="list-style-type: none"> Variety of monitoring and education initiatives.
Operation and Maintenance	<ul style="list-style-type: none"> Measures listed for other potential Project effects will be employed; Establish a replacement protected area that performs the regional protection functions of the Pike Lake South Management area; and Establish a Corporate Stewardship Agreement. 	A	L	L	LT	C	I	U/D	N	H	<ul style="list-style-type: none"> Variety of monitoring and education initiatives.
Decommissioning and Reclamation	<ul style="list-style-type: none"> Employ measures listed for other potential Project effects. 	A	L	L	LT	C	I	U/D	N	H	<ul style="list-style-type: none"> Variety of monitoring and education initiatives.

Key:

<p>Direction:</p> <p>P Positive A Adverse N Neutral</p> <p>Magnitude:</p> <p>L Low - the residual Project effects (alteration/loss) are not expected to exceed 5 percent of the known population in the RSA, and are not measurable.</p> <p>M Moderate - the residual Project effects (alteration/loss) are expected to be greater than 5 percent and not exceed 25 percent of the known population in the RSA and the effect can be measured.</p> <p>H High - the residual Project effects to (alteration/loss) are expected to exceed 25 percent of the known population in the RSA; the effect can be easily observed, measured and described, and may be widespread.</p> <p>Geographic Extent:</p> <p>S Site-specific Effect confined to the Project footprint for all Project components (i.e., PDA), and limited to directly affected environmental components.</p> <p>L Local: Effect extends beyond the Project footprint into the surrounding areas within the LSA</p> <p>R Regional: Effect extends beyond the LSA into the RSA, where indirect or cumulative effects may occur.</p> <p>B Beyond Regional: (provincial, national, and/or international extent) - Effect extends beyond the RSA, where indirect or cumulative effects may occur.</p>	<p>Duration:</p> <p>ST Short-term Effect occurs during the site-preparation or construction phase of the Project (i.e., 1 to 2 years).</p> <p>MT Medium-term Effect extends throughout the construction and operation phases of the Project (up to 17 years).</p> <p>LT Long-term Effect is greater than 17 years</p> <p>P Permanent – Effect persists.</p> <p>Frequency:</p> <p>O Once - Effect occurs once during the life of the Project (e.g., clearing).</p> <p>S Sporadic Effect occurs sporadically, at irregular intervals, without any predictable pattern during the life of the Project (e.g., hydrocarbon spills).</p> <p>R Regular Effect occurs at regular intervals during the life of the Project</p> <p>C Continuous.</p> <p>Reversibility:</p> <p>R Reversible Effect is reversible during the life of the Project.</p> <p>I Irreversible A long-term effect that is permanent (i.e., remains indefinitely as a residual effect).</p>	<p>Environmental or Socio-economic Context:</p> <p>U Undisturbed: Area relatively or not adversely affected by human activity.</p> <p>D Developed: Area has been substantially previously disturbed by human development or human development is still present.</p> <p>N/A Not Applicable.</p> <p>Significance:</p> <p>S Significant.</p> <p>N Not Significant.</p> <p>Prediction Confidence:</p> <p>L Low level of confidence.</p> <p>M Moderate level of confidence.</p> <p>H High level of confidence.</p>
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Table A.7
Summary of Project Residual Environmental Effects: SAR/SOCC

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics								Recommended Follow-up and Monitoring	
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance		Prediction Confidence
Change in Habitat											
Construction	<ul style="list-style-type: none"> Project design minimizes construction footprint (i.e., PDA) to the extent feasible. Delineate locations where plant SAR / SOCC occur, and avoid those locations to the extent feasible. Minimize disturbance and infilling within adjacent wetlands and maintain hydrological conditions to the extent feasible. Rehabilitate access routes that are no longer needed. Locate borrow pits more than 100 m away from the high water mark of water bodies, where feasible. Maintain natural buffers around wetlands and riparian zones. Dispose of slash from clearing as specified in permits. Comply with provincial and federal legislation, permits, approvals and guidelines. Maintain hydrology at stream crossings. Employ erosion and sediment control. Implement progressive reclamation. 	A	M	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance with mitigation measures.
Operation and Maintenance	<ul style="list-style-type: none"> Restrict construction activities to the PDA. Comply with all provincial and federal legislation, permits, approvals and guidelines. Implement erosion and sediment control. Invasive species management. Implement progressive reclamation. 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance with mitigation measures

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Distribution and Movement											
Construction and Operations and Maintenance and Decommissioning and Reclamation	<ul style="list-style-type: none"> Project design minimizes construction footprint (i.e., PDA) to the extent feasible. Flag the boundaries of sensitive areas before commencing any work in the area. Survey blasting areas for SAR or SOCC prior to any blasting activities. Limit noise levels whenever feasible. Allow wildlife to pass through construction sites without harassment. Comply with provincial and federal legislation, permits, approvals and guidelines. Maintain hydrology at stream crossings through approved methods for culvert installation. Implement erosion and sediment control. Invasive species management. Implement progressive reclamation and restoration. 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance of mitigation measures.
Change in Mortality Risk											
Construction	<ul style="list-style-type: none"> No hunting or harassment by personnel. Implement Avifauna Management Plan to address incidental take. On-site vehicle speed limits. 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance of mitigation measures.
Operation and Maintenance and Decommissioning and Reclamation	<ul style="list-style-type: none"> No hunting or harassment on the Project site. On-site vehicle speed limits. Use welding mats from April 1 to November 15 to prevent forest fires. Dispose of all waste appropriately. Limit lighting to that required for safe operation. Shield exterior lights from above. 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance of mitigation measures.

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Health											
Construction	<ul style="list-style-type: none"> Consider clearing by mulching and mechanized forestry equipment. Use best practices for fuels and other hazardous materials such as herbicides. Implement various dust control measures. 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance of mitigation measures.
Operation and Maintenance	<ul style="list-style-type: none"> Consider clearing by mulching and mechanized forestry equipment. Use best practices for fuels and other hazardous materials such as herbicides. Implement various dust control measures. Do not bury waste during progressive reclamation activities. Confirm equipment arrives on site free from fluid leaks. Inspect and maintain equipment on a regular schedule. Establish a site for equipment maintenance, repair, and cleaning that is a minimum of 100 m from any lake, river, stream, or wetland. Use best practices for fuels and other hazardous materials such as herbicides. Implement various dust control measures. 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance of mitigation measures.
Decommissioning and Reclamation	<ul style="list-style-type: none"> Use best practices for fuels and other hazardous materials such as herbicides. Implement various dust control measures. 	A	L	S	LT	O	I	U/D	N	H	<ul style="list-style-type: none"> Monitor for compliance of mitigation measures.

Key:

<p>Direction:</p> <p>P Positive - Beneficial or desirable change in the environment.</p> <p>A Adverse - Worsening or is undesirable change in the environment.</p> <p>N Neutral - No detectable or measureable change in the environment.</p> <p>Magnitude:</p> <p>L Low - the residual Project effects (alteration or loss) are not expected to exceed 5 percent of the known population in the RSA. No measurable effect on VEC as a whole.</p> <p>M Moderate - the residual Project effects (alteration or loss) are expected to be greater than 5 percent and not exceed 25 percent of the known population in the RSA and the effect can be measured.</p> <p>H High - the residual Project effects to (alteration or loss) are expected to exceed 25 percent of the known population in the RSA; the effect can be easily observed, measured and described, and may be widespread.</p>	<p>Geographic Extent:</p> <p>S Site-specific - Effect confined to the Project footprint for all Project components (i.e., PDA), and limited to directly affected environmental components.</p> <p>L Local - Effect extends beyond the Project footprint into the surrounding areas within the LSA.</p> <p>R Regional - Effect extends beyond the LSA into RSA, where indirect or cumulative effects may occur.</p> <p>B Beyond Regional (provincial, national, and/or international extent) - Effect extends beyond the RSA. Area where indirect or cumulative effects may occur.</p> <p>Frequency:</p> <p>O Once - Effect occurs once during the life of the Project (e.g., clearing).</p> <p>S Sporadic - Effect occurs sporadically, at irregular intervals, without any predictable pattern during the life of the Project (e.g., hydrocarbon spills).</p> <p>R Regular - Effect occurs on a regular basis and at regular intervals during the life of the Project.</p> <p>C Continuous - Effect occurs continuously.</p>	<p>Duration:</p> <p>ST Short-term - Effect occurs during the site-preparation or construction phase of the Project (i.e., 1 to 2 years).</p> <p>MT Medium-term - Effect extends throughout the construction and operation phases of the Project (up to 15 years).</p> <p>LT Long-term – Effect is greater than 15 years.</p> <p>P Permanent – Effect persists.</p> <p>Reversibility:</p> <p>R Reversible – effect is reversible during the life of the Project.</p> <p>I Irreversible – a long-term effect that is permanent (i.e., remains indefinitely as a residual effect).</p> <p>Environmental or Socio-economic Context:</p> <p>U Undisturbed - Area relatively or not adversely affected by human activity.</p> <p>D Developed - Area has been substantially previously disturbed by human development or human development is still present.</p> <p>N/A Not Applicable.</p> <p>Significance:</p> <p>S Significant.</p> <p>N Not Significant.</p> <p>Prediction Confidence:</p> <p>L Low level of confidence.</p> <p>M Moderate level of confidence.</p> <p>H High level of confidence</p>
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Note: (a) Although there are no thresholds to assess the potential alteration / loss of individual listed plants or plant populations, an accepted guideline in the collection of vascular and non-vascular plant voucher specimens is that an immediate population can withstand the loss of 1 in 20 individuals or 5 percent of a population (Alberta Native Plant Council [ANPC] Native Plant Collection and Use Guidelines 2000).

Table A.8
Summary of Project Residual Environmental Effects: Historic and Cultural Resources

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Loss or Alteration to Archaeological and Cultural Resources											
Construction	<ul style="list-style-type: none"> Implement EPP in the event of an unexpected discovery 	A	N/L	S	P	S	I	U	N	H	
Operation and Maintenance		A	N/L	S	P	S	I	U	N	H	
Decommissioning and Reclamation		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Key:

<p>Direction:</p> <p>N Neutral – no effect on Archaeological and Cultural Resources.</p> <p>A Adverse – loss or disturbance of Archaeological and Cultural Resources.</p> <p>Magnitude:</p> <p>N Negligible – no likely effect on Archaeological and Cultural Resources.</p> <p>L Low – disturbance of Archaeological and Cultural Resources but with prior retrieval of the resource and associated information, and with all necessary regulatory approvals.</p> <p>M Moderate – disturbance or loss of a portion of an Archaeological and Cultural Resource, with retrieval of a portion of the resource and its associated information, or a direct effect on a known Archaeological and Cultural Resource that is of interest and concern to the associated community, but that does not reduce the overall integrity and cultural value of the site.</p> <p>H High – disturbance or loss of an Archaeological and Cultural Resources, with no retrieval of the resource and its associated information, or a direct effect on Archaeological and Cultural Resources, which reduces the overall integrity and cultural value of the site.</p>	<p>Geographic Extent:</p> <p>S Site – effect confined to the PDA.</p> <p>L Local – any effect will be limited to the LSA.</p> <p>R Regional – effects may extend beyond the LSA.</p> <p>Duration:</p> <p>T Temporary – effect will occur but measures are taken to salvage and retrieve information from the resources, and/or move / rehabilitate the site.</p> <p>P Permanent – effect will be permanent and irreversible.</p> <p>Frequency:</p> <p>O Once - effect occurs once.</p> <p>S Sporadically – effect occurs occasionally but not consistently throughout the life of the Project.</p> <p>R Regularly – effect occurs at regular intervals throughout the life of the Project.</p> <p>C Continuous – effect will occur continuously.</p>	<p>Environmental or Socio-economic Context:</p> <p>U Undisturbed – area has been relatively or not adversely affected by recent human activity.</p> <p>D Disturbed – Area has been substantially previously disturbed by recent human development or human development is still present.</p> <p>N/A Not Applicable.</p> <p>Significance:</p> <p>S Significant.</p> <p>N Not Significant.</p> <p>Prediction Confidence:</p> <p>L Low level of confidence.</p> <p>M Moderate level of confidence.</p> <p>H High level of confidence.</p>
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Table A.9

**Summary of Project Residual Environmental Effects:
Current Use of Lands and Resources for Traditional Purposes by Aboriginal Persons**

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Activity Distribution (Location and/or Timing)											
Construction	<ul style="list-style-type: none"> On-going engagement with Aboriginal communities and organizations. No hunting and fishing policy for on-site Project workers. Progressive rehabilitation. 	N	-	-	N	-	-	D	N	H	<ul style="list-style-type: none"> On-going engagement with Aboriginal communities and organizations.
Operation and Maintenance		N	-	-	N	-	-	D	N	H	
Decommissioning and Reclamation		N	-	-	N	-	-	D	N	H	
Change in Overall Activity Levels											
Construction	<ul style="list-style-type: none"> On-going engagement with Aboriginal communities and organizations. Possible work rotations / cultural leave provisions and cultural activities in the workplace. 	N	-	-	N	-	-	D	N	H	<ul style="list-style-type: none"> On-going engagement with Aboriginal communities and organizations.
Operation and Maintenance		N	-	-	N	-	-	D	N	H	
Decommissioning and Reclamation		N	-	-	N	-	-	D	N	H	
Resulting Change in Overall Quality and Cultural Value of the Activity											
Construction	<ul style="list-style-type: none"> On-going engagement with Aboriginal communities and organizations. 	N	-	-	N	-	-	D	N	H	<ul style="list-style-type: none"> On-going engagement with Aboriginal communities and organizations.
Operation and Maintenance		N	-	-	N	-	-	D	N	H	
Decommissioning and Reclamation		N	-	-	N	-	-	D	N	H	

Key:

<p>Direction: P Positive. A Adverse. N Neutral (or No Effect).</p> <p>Magnitude: L Low: affects a small group of users. M Moderate: affects less than the majority of users across multiple activities. H High: affects the majority of land and resource users across multiple activities.</p> <p>Geographic Extent: S Site: includes PDA and 200 m beyond. L Local: LSA. R Regional: RSA.</p>	<p>Frequency: N Not likely to occur. O Once: Occurs once. S Sporadic: occurs sporadically. R Regular: occurs on a regular basis. C Continuous.</p> <p>Duration: S Short term: construction phase only. M Medium term: continues through operation and maintenance phase. L Long term: continues beyond operation and maintenance.</p> <p>P Permanent.</p> <p>Reversibility: R Reversible. I Irreversible.</p>	<p>Environmental or Socio-economic Context: U Undisturbed: Area relatively or not adversely affected by human activity. D Developed: Area has been substantially previously disturbed by human development or human development is still present.</p> <p>Significance: S Significant. N Not Significant.</p> <p>Prediction Confidence: L Low level of confidence. M Moderate level of confidence. H High level of confidence.</p> <p>N/A Not Applicable.</p>
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Table A.10
Summary of Project Residual Environmental Effects:
Other Current Use of Lands and Resources

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Change in Access											
Construction	<ul style="list-style-type: none"> Install navigation signage for stream crossings and in-water Project features Work with local snowmobile and cross country ski organizations to address Project effects. Work with cabin owners to address Project effects on access 	A	R	S	C	M	R	D	N	H	<ul style="list-style-type: none"> Continue engagement with local resource user groups such as the local snowmobile club and cross country ski club.
Operation and Maintenance		A/P	I	S	N	M	R	D	N	H	
Decommissioning and Reclamation		P/A	L	S	ST	S/P	R	D	N	H	
Change in Level of Activity / Use											
Construction	<ul style="list-style-type: none"> Manage dust and noise Implement a no harvesting and firearms prohibition policy on Project site Work with local snowmobile and cross country ski organizations to address Project effects For reasons of public safety the open pit will remain restricted at decommissioning, with a berm constructed around its perimeter and signage will be posted and, Site decommissioning will include removal of rail, contouring of waste rock disposal areas, and re-vegetation of these areas and the TMF 	A	R	S	C	S	R	D	N	H	
Operation and Maintenance		A	N	L	C	M	R	D	N	H	
Decommissioning and Reclamation		P	I	S	C	P	R	D	N	H	
Change in Cabin Use											
Construction	<ul style="list-style-type: none"> Manage dust and noise; Conduct an inventory of existing cabins and owners; Continue engagement with cabin owners; Install navigation signage for stream crossings and in-water Project features; Work with local snowmobile organizations and cabin owners to address Project effects; Develop Blasting Plan; and Work with cabin owners to address Project effects on access. 	A	R	S	C	P	R	D	N	H	
Operation and Maintenance		A	R	L	C	L	R	D	N	H	
Decommissioning and Reclamation		P	L	L	C	P	R	D	N	H	
Change in Viewscape											
Construction	<ul style="list-style-type: none"> South Rose Waste Rock Disposal Area was moved to minimize viewshed effects on residents of Fermont 	A	R	L	C	M	R	D	N	H	
Operation and Maintenance		A	R	L	C	M	R	D	N	H	
Decommissioning and Reclamation		P	I	L	C	P	R	D	N	H	

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-economic Context	Significance	Prediction Confidence	
Change in Designated Land Use											
Construction	<ul style="list-style-type: none"> Alderon will engage in ongoing discussions with Labrador City and Wabush. 	A	R	S	C	M	R	D	N	H	
Operation and Maintenance		A	N	S	C	M	R	D	N	H	
Decommissioning and Reclamation		P	I	S	C	L	R	D	N	H	

Key:

<p>Direction: P Positive. A Adverse. N Neutral.</p> <p>Magnitude: L Low (affects a small group of land and resource users). M Moderate (affects less than the majority of land and resource users across multiple activities). H High (affects the majority of land and resource users across multiple activities).</p> <p>Geographic Extent: S Site: within the PDA. L Local: within the LSA. R Regional: within the RSA.</p>	<p>Frequency: N Not likely to occur. O Once: Occurs once. S Sporadic: occurs sporadically. R Regular: occurs on a regular basis. C Continuous.</p> <p>Duration: S Short-term (restricted to construction phase). M Medium-term (continues through operations and maintenance phase). L Long-term (16 to 50 years). P Permanent.</p> <p>Reversibility: R Reversible: the effect can be reversed to existing conditions. I Irreversible: the effect cannot be reversed.</p>	<p>Environmental or Socio-economic Context: U Undisturbed: Area relatively or not adversely affected by human activity. D Disturbed: Area has been substantially previously disturbed by human development or human development is still present.</p> <p>Significance: S Significant. N Not Significant.</p> <p>Prediction Confidence: L Low level of confidence. M Moderate level of confidence. H High level of confidence. N/A Not Applicable.</p>
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Table A.11

Summary of Project Residual Environmental Effects: Community Services and Infrastructure

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Municipal Services and Infrastructure (Western Labrador)											
Construction	<ul style="list-style-type: none"> Accommodation strategy On-site medical services Transportation arrangements Human resource policies and practices Liaison with agencies 	A	L	WL	MT	C	N/A	N/A	N	H	<ul style="list-style-type: none"> Alderon will liaise with local authorities and provide updates on Project activities and plans on a regular basis.
Operation and Maintenance		A	M	WL	LT	C	N/A	N/A	N	M	
Decommissioning and Reclamation		A	L	WL	MT	C	N/A	N/A	N	H	
Municipal Services and Infrastructure (Fermont)											
Construction	<ul style="list-style-type: none"> Accommodation strategy On-site medical services Human resource policies and practices Liaison with agencies 	A	L	F	MT	C	N/A	N/A	N	H	<ul style="list-style-type: none"> Alderon will liaise with local authorities and provide updates on Project activities and plans on a regular basis.
Operation and Maintenance		A	L	F	LT	C	N/A	N/A	N	H	
Decommissioning and Reclamation		A	L	F	MT	C	N/A	N/A	N	H	
Housing and Accommodations (Western Labrador)											
Construction	<ul style="list-style-type: none"> Accommodation strategy Transportation arrangements Human resource policies and practices Liaison with agencies 	A	M	WL	MT	C	N/A	N/A	N	H	<ul style="list-style-type: none"> Alderon will liaise with local authorities and provide updates on Project activities and plans on a regular basis.
Operation and Maintenance		A	M	WL	LT	C	N/A	N/A	N	M	
Decommissioning and Reclamation		A	L	WL	MT	C	N/A	N/A	N	H	
Housing and Accommodations (Fermont)											
Construction	<ul style="list-style-type: none"> Accommodation strategy Transportation arrangements Human resource policies and practices Liaison with agencies 	A	L	F	MT	C	N/A	N/A	N	H	<ul style="list-style-type: none"> Alderon will liaise with local authorities and provide updates on Project activities and plans on a regular basis.
Operation and Maintenance		A	L	F	LT	C	N/A	N/A	N	H	
Decommissioning and Reclamation		A	L	F	MT	C	N/A	N/A	N	H	

Key:

<p>Direction: P Positive. A Adverse.</p> <p>Magnitude: L Low: A change experienced by less than 5 percent of households. M Moderate: A change experienced by 5 percent to 33 percent of households. H High: A change experienced by more than 33 percent of households.</p> <p>Geographic Extent: WL Western Labrador. L Labrador. F Fermont.</p>	<p>Duration: ST Short-term. MT Medium-term. LT Long-term. P Permanent – will not change back to original condition.</p> <p>Frequency: O Occasionally, once per month or less. S Occurs sporadically at irregular intervals. R Occurs on a regular basis and at regular intervals. C Continuous.</p> <p>Reversibility: R Reversible. I Irreversible. N/A Not Applicable.</p>	<p>Environmental or Socio-economic Context: U Undisturbed: Area relatively or not adversely affected by human activity. D Developed: Area has been substantially previously disturbed by human development or human development is still present. N/A Not Applicable.</p> <p>Significance: S Significant. N Not Significant.</p> <p>Prediction Confidence: L Low level of confidence. M Moderate level of confidence. H High level of confidence.</p>
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Table A.12
Summary of Project Residual Environmental Effects: Health and Community Health

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Changes in Air Quality (Which Could Affect Human Health)											
Operation and Maintenance (Representative of all Project phases)	<ul style="list-style-type: none"> Refer to Chapter 14, Atmospheric Resources 	A	L	L	M	C	R	D	N	M	<ul style="list-style-type: none"> Continue with existing air quality monitoring programs in the LSA.
Changes in Water Quality (Which Could Affect Human Health)											
Operation and Maintenance (Representative of all Project phases)	<ul style="list-style-type: none"> Refer to Chapter 16, Water Resources 	A	L	S	M	C	R	D	N	M	<ul style="list-style-type: none"> Continue with current baseline surface water monitoring programs in the LSA.
Changes in Soil Quality (Which Could Affect Human Health)											
Operation and Maintenance (Representative of all Project phases)	<ul style="list-style-type: none"> Refer to Chapter 14, Atmospheric Resources 	A	L	L	P	C	R	D	N	M	<ul style="list-style-type: none"> Continue with existing air quality monitoring programs in the LSA.
Changes in Vegetation Quality (Which Could Affect Human Health)											
Operation and Maintenance (Representative of all Project phases)	<ul style="list-style-type: none"> Refer to Chapter 14, Atmospheric Resources 	A	L	L	M	C	R	D	N	M	<ul style="list-style-type: none"> Continue with existing air quality monitoring programs in the LSA.
Change in Public Safety (Injuries / Accidents)											
Construction	<ul style="list-style-type: none"> Project site access restrictions Transportation systems, new access roads Planning and communication 	A (N)	L	L	S	S	R	D	N	H	<ul style="list-style-type: none"> Continued cooperation and communication with local and regional communities and agencies and service providers. Provision of Project information as required and requested.
Operation and Maintenance		A (N)	L	L	M	S	R	D	N	H	
Decommissioning and Reclamation		N	-	-	-	-	-	-	-	-	
Change in Substance Abuse											
Construction	<ul style="list-style-type: none"> Use of a resident workforce wherever possible. Workforce accommodations plan Community and cultural information and training for workers Employee assistance program Drug and alcohol testing, as legally allowed Continued cooperation with local and regional communities and agencies and service providers 	A	L	L	S	S	R	D	N	H	<ul style="list-style-type: none"> Continued cooperation and communication with local and regional communities and agencies and service providers. Provision of Project information as required and requested.
Operation and Maintenance		A	L	L	M	S	R	D	N	H	
Decommissioning and Reclamation		N	-	-	-	-	-	-	-	-	

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Changes in Crime											
Construction	• As above	A	L	L	S	S	R	D	N	H	• Continued cooperation and communication with local and regional communities and agencies and service providers. Provision of Project information as required and requested.
Operation and Maintenance		A	L	L	M	S	R	D	N	H	
Decommissioning and Reclamation		N	-	-	-	-	-	-	-	-	
Changes in Perceptions of Quality of Life and Well-Being											
Construction	• As above	A / P	L	L	M	S	R	D	N	H	• Continued cooperation and communication with local and regional communities and agencies and service providers. Provision of Project information as required and requested.
Operation and Maintenance		A / P	L	L	M	S	R	D	N	H	
Decommissioning and Reclamation		N	-	-	-	-	-	-	-	-	

Key:

<p>Direction: P Positive. A Adverse. N Neutral (or No Effect). Magnitude: L Low: affects a small number of persons, and may be indistinguishable from the normal condition and/or natural variability of the VEC;). M Moderate: effect is detectable within a population, but is within normal range of variability and/or is within regulatory limits / standards and/or objectives. H High: effect cause clear and sustained exceedences of regulatory limits / standards and/or objectives). Geographic Extent: S Site: includes PDA and 200 m beyond. L Local: LSA. R Regional: RSA.</p>	<p>Frequency: N Not likely to occur. O Once: Occurs once. S Sporadic: occurs sporadically. R Regular: occurs on a regular basis. C Continuous. Duration: S Short-term: construction phase only . M Medium-term: continues through operation and maintenance phase. L Long-term: continues beyond operation and maintenance. P Permanent. Reversibility: R Reversible. I Irreversible. Reversibility: R Reversible. I Irreversible.</p>	<p>Environmental or Socio-economic Context: U Undisturbed: Area relatively or not adversely affected by human activity. D Developed: Area has been substantially previously disturbed by human development or human development is still present. Significance: S Significant. N Not Significant. Prediction Confidence: L Low level of confidence. M Moderate level of confidence. H High level of confidence. N/A Not Applicable.</p>
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Table A.13
Summary of Project Residual Environmental Effects: Economy, Employment and Business

Project Phase	Mitigation / Compensation Measures	Residual Environmental Effects Characteristics									Recommended Follow-up and Monitoring
		Direction	Magnitude	Geographic Extent	Duration	Frequency	Reversibility	Environmental or Socio-Economic Context	Significance	Prediction Confidence	
Economy											
Construction	• Benefits Plan and Diversity Plan provisions.	P	H	LW L NL	MT	C	N/A	N/A	S	H	• As per Benefits Plan and Diversity Plan
Operation and Maintenance		P	H	LW L NL	LT	C	N/A	N/A	S	H	
Decommissioning and Reclamation		P	L	LW L NL	ST	C	N/A	N/A	S	H	
Employment											
Construction	• Benefits Plan and Diversity Plan provisions.	P	H	LW L NL	MT	C	N/A	N/A	S	H	• As per Benefits Plan and Diversity Plan
Operation and Maintenance		P	H	LW L NL	LT	C	N/A	N/A	S	H	
Decommissioning and Reclamation		P	L	LW L NL	ST	C	N/A	N/A	S	H	
Business											
Construction	• Benefits Plan and Diversity Plan provisions.	P	H	LW L NL	MT	C	N/A	N/A	S	H	• As per Benefits Plan and Diversity Plan
Operation and Maintenance		P	H	LW L NL	LT	C	N/A	N/A	S	H	
Decommissioning and Reclamation		P	L	LW L NL	ST	C	N/A	N/A	S	H	

Key:

<p>Direction: P Positive. A Adverse.</p> <p>Magnitude: L Low: A change experienced by less than 5 percent of households. M Moderate: A change experienced by 5 percent to 33 percent of households. H High: A change experienced by more than 33 percent of households.</p> <p>Geographic Extent: LW Economic Zone 2. L Labrador. NL Province.</p>	<p>Duration: ST Short-term. MT Medium-term. LT Long-term. P Permanent – will not change back to original condition.</p> <p>Frequency: O Occasionally, once per month or less. S Occurs sporadically at irregular intervals. R Occurs on a regular basis and at regular intervals. C Continuous.</p> <p>Reversibility: R Reversible. I Irreversible. N/A Not Applicable.</p>	<p>Environmental or Socio-economic Context: U Undisturbed: Area relatively or not adversely affected by human activity. D Developed: Area has been substantially previously disturbed by human development or human development is still present. N/A Not Applicable.</p> <p>Significance: S Significant. N Not Significant.</p> <p>Prediction Confidence: L Low level of confidence. M Moderate level of confidence. H High level of confidence.</p>
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APPENDIX B

**Complete Record of all Comments
Identified During Consultation and
Engagement Activities with Responses**

Table B.1
Issues Raised by Aboriginal Groups and Stakeholders – Project Description

Issue	Community/ Organization	Summary of Comments Raised During Consultation and Engagement Activities	Response / Location in EIS
Engineering and Project Design	Cabin Owners	Are there alternatives to the proposed infrastructure locations? Why is Alderon proposing infrastructure in this configuration? Why weren't alternative routes / locations chosen?	The mine site and associated infrastructure were selected based on the location of the ore body. Key considerations in the selection of locations for key Project elements are described in Section 2.5. Various alternatives were identified and evaluated based on technical, safety, economic and environmental factors, as described in Section 2.8.
	Fermont	Why does the road follow the railway as opposed to going straight, would there be a safety issue associated with travel along the railway?	
	Wabush	Have alternate access road options been explored? Why use Elephant Head Road and Jean Lake instead of Duley Lake, as currently used? Concern of proximity of Project infrastructure to Grenfell Dr.	
		Would it be possible to put a conveyor instead of a railway?	
Mining Operations	Fermont	How often will blasting occur and will it be synchronized with other mines? At the Mount Wright ArcelorMittal mine, there is a required evacuation of all personnel for a 1000m area when blasting occurs. There may be issues associated with communication regarding blasting to ensure no one is in the area. What will be the safety perimeter around the pit to ensure people safety?	Following the EA approval, a Blasting Plan will be developed and implemented in compliance with all applicable laws, regulations and industry best practices, and with consideration of safety, environmental and social issues, as identified through the EA. See Section 2.6.2.
	Cabin Owners	Will there be blasting operations on weekends?	
	Cabin Owners	Please provide better details of actions being developed to minimize environmental impacts.	The purpose of the EA process is to identify mitigation measures to avoid or reduce environmental issues and effects. These are described throughout this EIS, and summarized in Chapter 27.
	Fermont	Potential effects of light from working site, will there be operations during the night?	Certain aspects of Project construction and operations will occur 24 hours per day. Light emissions and their potential effects are assessed in detail in Chapter 14.
	Innu Nation	Is the first time that conveyors are used in the area, and what is the width of the right of way for conveyors?	Conveyors are commonly used in similar mining operations. Conveyors will be covered to minimize fugitive emissions (e.g., dust, debris). Conveyor characteristics (locations, dimensions) and their use are described in detail in Section 2.5.2.
	Cabin Owners	What will be the height of the conveyor over the lake? Will there be guards around the conveyor to protect against loss into the lake and for cabin owners travelling to their cabins?	
	Cabin Owners	I am concerned about safety with regards to speed and the number of trucks using the road.	
		Wabush / Fermont / Lab City	Concerns about safety include child safety due to increased road and rail traffic, elderly people during construction.

Issue	Community/ Organization	Summary of Comments Raised During Consultation and Engagement Activities	Response / Location in EIS
Economic Feasibility	Wabush	With the competition and expansion of other Projects such as IOC's genesis Project, do you think Alderon will make it to the market in time?	Based on Project characteristics, schedule and current market conditions, this Project is viable and economically attractive. Section 2.2 outlines some of the key economic considerations and conditions which are relevant to the Project.
	Wabush / Innu Nation	30% of iron seems like a low percentage. Is it economical / profitable to develop this Project? Is the price of iron ore expected to increase? What price would iron need to be to make the Project profitable?	
	CIM Conference	Are you concerned that analysts predict the iron price will go down in a few years?	
	CIM Conference	Has your PEA been signed by a qualified person in regards to the 43-101 standard? At the end of the predicted mine life, what are you going to do with your employees?	Alderon personnel and contractors are appropriately qualified and skilled for their respective roles. Section 1.1 describes the Project's proponent and its overall management structure and some key personnel/positions. Section 2.7 provides information on the Project's anticipated construction and operations workforce, including the timeframes and durations for each activity/position.
	Fermont	Alderon should provide proof to the public that the Québec claims are sterile. Otherwise it leads to suspicion that Alderon is hiding something by dropping the claims.	The Kami property is located entirely in Labrador. Mining activity in Québec is not part of the current Project as proposed. See Section 2.4 for a description of the Project location and associated mineral licenses.
Accidents and Malfunctions	Cabin Owners	Concern about the tailings pond effluent discharging into Duley Lake and contaminating it.	Alderon will treat all effluent to meet regulatory standards prior to release into the environment. The key characteristics and features of the Tailings Management Facility and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2. The potential effects of any such accidental events are assessed in Chapter 16 and others.
	Le mouvement citoyen de Fermont	In case of an accident, what measures will be in place to inform the people of Fermont of risks and mitigate the situation? If an incident happens in Québec, the MDDEP informs the community through a press release.	In the event of an accidental event or malfunction (e.g., spill), Alderon will inform and communicate relevant agencies and potentially affected communities as required, in accordance with their Environmental Protection Plan and emergency response plans. Avoidance and response procedures for accidental events are described in Chapters 5, 8 and others and considered throughout the EIS.
Access road	Labrador City	Concern that the roadway is located in close proximity to the water source.	The design and construction of the roadway will be in compliance with all applicable regulatory standards, including buffer zones. This issue, and measures to mitigate any potential effects to water resources, are assessed in detail in Chapter 16.
	Fermont	Cabin owner suggested Project should have road to mine from Fermont to shorten drive to work.	The mine site and associated infrastructure were selected based on the location of the ore body. Key considerations in the selection of locations for key Project elements are described in Section 2.5. Various alternatives were identified and evaluated based on technical, safety, economic and environmental factors, as described in Section 2.8. Such a road is not considered to be a technically and economically feasible option.

Issue	Community/ Organization	Summary of Comments Raised During Consultation and Engagement Activities	Response / Location in EIS
Rail	Innu Nation	Would Alderon get rights on railway and would they upgrade the railway?	The Project is planned to utilize the existing QNS&L railroad, and does not include proposed upgrades to that infrastructure. Alderon's proposed new railway infrastructure will tie into the QNS&L railway as described in Sections 2.5.7 and 2.6.2.
	Labrador City	Will Alderon use the current rail system or construct their own?	
	Cabin Owners	An important issue for me is that I feel the railway is too close to the Town of Wabush.	To address this issue, Alderon moved the rail line further away from the Town of Wabush to minimize interaction with future town development planned in the southeast area. The potential effects (including vibration) of the railway operations are modeled and described in Chapter 14.
	Wabush / Labrador City	How will the rail line affect new town expansion?	
	Wabush/ Labrador City	Has Alderon considered other alternatives, such as connecting to Wabush mines, on the west side of Jean Lake?	The rail line was moved further away from the northeast Section of Wabush to reduce potential interactions with future town development. Key considerations in the selection of locations for key Project elements are described in Section 2.5. Various alternatives were identified and evaluated based on technical, economic and environmental factors, as described in Section 2.8.
	Labrador City	Concern that the rail line is located in close proximity to the water source and wetland / bogs may cause contamination due to materials seeping into water.	The design and construction of the roadway will be in compliance with all applicable regulatory standards, including buffer zones. This issue, and measures to mitigate any potential effects to water resources and wetlands, are assessed in detail in Chapter 16 and 17.
Wabush	There should be guards at road crossing for the railway to ensure safety. Alderon should not only meet the requirements, but set the bar high.	Safety is a number one concern for Alderon. The rail line as currently designed does not cross the Trans Labrador Highway or any other provincial/ municipal paved road ways. The proposed rail infrastructure is described in Section 2.5.7.	
Tailings impoundment	Cabin Owners	My cabin is on Loon Lake and I am worried about tailings.	Alderon will treat all effluent to meet regulatory standards prior to release into the environment. The key characteristics and features of the Tailings Management Facility and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2.
	Fermont / Wabush	What is the location of tailings? Concern about the location of tailings nearby residents and cabins. Is it possible to relocate the tailings?	The proposed Tailings Management Facility is located west of Riordan Lake in the eastern portion of the Project area. See Figure 2.5 in Section 2.5 for an overall site plan. Key considerations in the design and planning of the Tailings Management Facility are described in Section 2.5.4. Various alternatives were identified and evaluated based on technical, economic and environmental factors, as described in Section 2.8.
	Innu Nation	Alderon should put a fence around the tailings and the pit to avoid that wildlife such as caribou and partridge go in these areas and eat the tailings.	The Tailings Management Facility will be contained by a series of natural ridges and containment dams/dykes. Key considerations in the design and planning of the Tailings Management Facility are described in Section 2.5.4. Chapter 19 includes an assessment of potential effects to wildlife and their mitigation.

Issue	Community/ Organization	Summary of Comments Raised During Consultation and Engagement Activities	Response / Location in EIS
Tailings impoundment (continued)	Labrador City	Concern about the effect of tailings on water including Riordan Lake, wetland / bogs and nearby water system. Could tailings overflow or seep into water? What will happen to fish?	Alderon will treat all effluent to meet regulatory standards prior to release into the environment. The key characteristics and features of the Tailings Management Facility and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2. The potential effects of any such accidental events are assessed in Chapter 16 and others. Chapter 18 includes an assessment of potential effects to fish and their mitigation.
	Wabush	Has Alderon given consideration to using tailings to create bicycle and walking trails for residents, as it has been done for other projects?	Use of tailings for recreational activities is not feasible. Alderon will work with the municipalities to determine recreational infrastructure improvements. Information on recreational infrastructure is provided in Chapter 24.
Location of transmission	Wabush	Concern of location of the transmission or power line along lake and possible effects to recreation, and nearby residents (within 1 km). Possible health effects, and on water supply. Could the transmission line be relocated?	The design and construction of the transmission line will be in compliance with all applicable regulatory standards, including buffer zones. Key considerations in the design and planning of the transmission line are described in Section 2.5.6.
Availability of power	Labrador City / Wabush	Concern about power requirements, how much is needed and will Nalcor be able to provide a sufficient amount over the life of the Project? Can the Project recall power back from Québec?	The operations phase of the Project will see an overall demand for power in the order of 100-120 MW. The Project power requirements and the manner in which they will be addressed (options by Nalcor Energy), including responsibility for permitting and constructing any new transmission line(s) are described in Section 2.5.6.
	Uashat	How Alderon is addressing the power issue and where they will get their power? Will Alderon need to build a transmission line, and if so, does the EIS cover the transmission line and access to power?	
Location of waste rock piles	Fermont	Will the abandonment of claims on Québec side change the shape for the waste?	The Project does not include Project components or activities in Québec. This will not affect the Project as designed and presented in this EIS. See Section 2.5.3 for details about the design and location of the waste rock disposal areas.
	Fermont / Wabush / Lab City	Can the waste rock be relocated away from Fermont?	The location of the waste rock disposal areas have been selected (and was subsequently revised) based on this issue and associated consultations with residents. See Section 2.5.3 for details about the design and location of the waste rock disposal areas.

Table B.2
Issues Raised by Aboriginal Groups and Stakeholders – Atmospheric Environment

Issue	Community/ Organization	Summary of Comments Raised During Consultation and Engagement Activities	Response / Location in EIS
Change in Air Quality	Wabush / Fermont	<p>Concerns about potential effects on air quality, air pollution and effect on quality of life. Questions asked:</p> <ul style="list-style-type: none"> • Are there measures to minimize atmospheric pollution from the various components associated with mining? • Will the Project diminish quality of life and purity of air on the territory? • What will you do if air quality is affected? Will you close the mine? 	<p>Potential effects to air quality from the Project have been assessed in the EIS. The main effect from the Project on air quality will be increased level of dust. Mitigation measures for all potential effects, including dust emissions have been identified, including dust suppression, equipment preventative maintenance programs, and engineering controls such as covered conveyors, as required. Emissions from the blast site will be monitored to ensure they are within regulatory limits.</p> <p>Results of the assessment of effects on the atmospheric environment are provided in Section 14.6. Chapter 25 of the EIS has evaluated physical health and community health (including quality of life) associated with mine operations.</p>
	Fermont	<p>Toxic plumes are associated with blasting, what will you do if it comes to Fermont? Will the air inhaled be safe with people with respiratory illnesses in the Town of Fermont? Will toxic emissions from blasting be transported by wind to the Fermont and neighbouring Québec territory?</p>	<p>The distance between Fermont and the open pit, where blasting would mainly occur, is 5 km. Emissions from blasting will become less concentrated as they leave the mine site. Emissions from the blast site will be monitored to ensure they are within regulatory limits. This means that the concentrations of emissions will be comparable to normal combustion sources used by residents, such as woodstoves and barbecues.</p> <p>Details on the nature of emissions is provided in Section 14.6. Chapter 25 of the EIS has evaluated physical health, and community health (including quality of life) associated with mine operations.</p>
	Wabush / Fermont	<p>Questions about air quality monitoring:</p> <ul style="list-style-type: none"> • Explain air quality programs, including rationale for monitoring locations, parameters, etc. • Does the Alderon mine foresee measures (sensors) to ensure that the quality of air of the Town of Fermont? • Will tools used to monitor air quality be made available for public consultation? 	<p>Alderon conducted baseline programs for air quality to characterize existing conditions of the atmospheric environment that could be affected by the Project. In addition to using data from existing monitoring stations, Alderon installed monitoring stations on the shores of Long Lake, Wabush and Fermont. This data was used to model dispersion of particulate matter resulting from the Project. Parameters measured included total particulate matter, PM2.5 and PM10. A monitoring program will be implemented during operations, comparable to that used in similar industries. Results are provided in Section 14.5. Additional details on baseline air quality data and the proposed monitoring program are provided in Section 14.10 and Appendix E</p>

Issue	Community/ Organization	Summary of Comments Raised During Consultation and Engagement Activities	Response / Location in EIS
Noise	Fermont / Lab City / Wabush / Cabin Owners	<p>Concern about noise pollution from air and other transportation, blasting and operations by cabin owners (Round Rail, Riordan Lake), residents, and recreation users at Duley Park. Community members can hear and feel blasting from other mines (ArcelorMittal mine, IOC) that are located further away than the Project so they are concerned about noise effects from operations that are very close. Questions asked:</p> <ul style="list-style-type: none"> • How could it be possible not to be affected by your mine? • Will the noise break windows or dishes? • Will blasting for the Project would be heard in Fermont, or in the surrounding recreational areas? 	<p>Noise levels have been measured and predicted carefully to help design the Project and to ensure they are within regulatory limits. Following the EA approval, a Blasting Plan will be developed and implemented in compliance with all applicable laws, regulations and industry best practices, and with consideration of safety, environmental and social issues as identified throughout the EIS. Noise predictions are provided in Section 14.6 and information on the Blasting Plan is provided in Section 2.6.2.</p>
	Fermont	<p>At the Mont Wright ArcelorMittal mine (where participants work), there is a required evacuation of all personnel for a 1,000-m area when blasting occurs. Participant identified that there may be issues associated with communication regarding blasting to ensure no one is found in the area.</p>	<p>Warnings are issued in the affected area using loud signalling devices before blasts are initiated and audible. Potential effects from blasting activities are discussed in Section 14.6.</p>
	Le mouvement citoyen de Fermont	<ul style="list-style-type: none"> • Are measures in place to reduce noise effects? • Have studies been undertaken on the effects of noise on the Town of Fermont? • Will Alderon follow noise limits developed by the L'organisation Mondiale de la Santé (World Health Organization)? 	<p>Noise levels have been predicted for the Town of Fermont and will be within the regulatory limits even during highest levels of mine operation. Noise predictions have been provided in Section 14.6.</p>
	Labrador City / Wabush	<p>Where the railway crosses the road, will there be a whistle? If so, this may have an effect on community members by creating noise disturbance.</p>	<p>Train whistle signals are required by railway regulation at all public crossings at grade and as required to warn trespassers on the right-of-way. The proposed rail line does not include any public crossings at grade thereby reducing the potential for train whistle noise. See Section 2.5.7 for more details on the proposed rail line.</p>
	Sept-îles	<p>Are the requirements for dust, noise, etc. different in Newfoundland than in Québec?</p>	<p>The Project is being designed to meet federal and provincial guidelines, including those of Newfoundland and Labrador and Québec. See Section 14.2.3 for an overview of relevant regulations and guidelines.</p>
Dust	Cabin Owners	<p>Dust is an issue of importance. Since the Consolidated Thompson operation started, dust is now coming into the Duley area for the first time. Concern that winds will send dust all over. Several cabin owners expressed concern with the prevailing winds blowing dust towards Wabush from the tailings impoundment. Suggestion that a new town site may be required. Cabin owners are expecting compensation for noise and dust.</p>	<p>Dust emissions have been measured and predicted in the assessment so that the Project design will comply with the prescribed limits. Alderon will implement mitigation to reduce significant adverse environmental effects on properties. Dust emission modelling and control technologies are discussed in Section 14.6.</p>

Issue	Community/ Organization	Summary of Comments Raised During Consultation and Engagement Activities	Response / Location in EIS	
Dust (continued)	Fermont / Lab City / Wabush/ Cabin Owners	Dust from operations, tailings, road traffic and blasting is an issue of main concern for all three communities. Questions asked: <ul style="list-style-type: none"> • What are the plans for dust management? • How do these plans take prevailing winds and storms into consideration? Participants suggested dust mitigation including revegetation, and altering the placement of waste rock material when wind is coming from the northeast.	In the EIS, potential effects from dust are predicted and assessed. Weather conditions were included in the assessment by considering three full years of weather data, including prevailing wind and other conditions. Based on the results of this assessment, mitigation measures have been identified to manage dust from tailings, blasting and traffic. During operations, four full time water trucks will be used to control dust on the roads. The TMF will be managed to control dust through moisture, revegetation and other management practices. Conveyors will be covered to minimize dust. More detail on dust management and control is provided in Section 14.6.	
	NNK	In Schefferville, dust from the tailings is a major issue. <ul style="list-style-type: none"> • What will be the effects of dust from this Project? • What kind of engineering control measures will be put in place? 		
		Could the silty sand from the tailings be used to make concrete or other construction purposes?		Alderon will progressively revegetate the tailings management facility and materials will not be available for other uses. However, Alderon could consider alternative uses as appropriate. Information on the TMF is available in Section 2.5.4 and 2.6.2.
		Characterization of existing ground quality—will watering of road create run-off?		The road material presents no hazard from runoff. Watering rates will be managed to maximize effectiveness and minimize wasted runoff.
Greenhouse Gas Emissions	Wabush	Inquiry about incorporation of more eco-friendly mining alternatives: alternatives to fossil fuels for mine fleet; off-setting electrical usage with solar or wind energy; use of composite rail ties.	The processing facilities and excavators for the Project are drawing on electrical energy that will be substantially renewable in origin, from hydroelectric generating stations. GHG emissions have been assessed and compared with provincial total and national total. This analysis is provided in Section 14.6.	

Table B.3
Issues Raised by Aboriginal Groups and Stakeholders – Landforms, Soils, Snow and Ice

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Acid Rock Drainage and Metal Leaching	General	General	In the EIS, the potential for acid rock drainage (ARD) and metal leaching has been determined to be very low. The assessment included results from baseline sampling and the experience of nearby iron ore mine operations. There are sections of the ore deposit that contain sulphides which have the potential to generate ARD. Ongoing monitoring of tailings discharge, run-off and mine water will be conducted throughout the life of the mine to ensure that discharges meet regulatory standards. If ARD is determined to be an issue, appropriate mitigation will be identified and implemented. Details are provided in Section 15.6 and 16.6.
Snow and Ice	Le mouvement citoyen de Fermont	Are there measures taken to protect the snow from pollution from mine residues?	Control measures on-site will limit the particulate emissions to meet all regulatory standards. By controlling particulate emissions from Project activities, the deposition of dust on the snowpack will be greatly reduced. Due to the composition of the ore, no adverse residual environmental effects are expected. This assessment has been conducted based on predicted emissions during the most active period of the mine. Details on control measures are presented in Section 15.6.
	Fermont	What are the effects on ice on Daviault Lake during blasting?	Following the EA approval, a Blasting Plan will be developed and implemented in compliance with all applicable laws, regulations and industry best practices, and with consideration of safety, environmental and social issues as identified throughout the EIS. This issue has been addressed in Section 15.6 and information on the Blasting Plan is provided in Section 2.6.2.
Rehabilitation	Fermont	Fermont	Yes, a Financial Assurance, as set out in Section 10 of the Mining Act and addressed in Section 8 of the Mining Regulations will be set aside to cover the costs for all activities included in the Development Plan, the Rehabilitation and Closure Plan, as well as those activities required for on-going site monitoring and maintenance. Information on the Rehabilitation and Closure Plan is provided in Sections 2.6.4 and 8.1.12.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Rehabilitation (continued)	Fermont	Fermont	<p>A Rehabilitation and Closure Plan has been prepared at a feasibility level and will be revised to a detailed design level prior to Project construction and development. Preliminary details on closure and decommissioning activities are presented in the Project Description in Section 2.6.4. Information on the Rehabilitation and Closure Plan is provided in Sections 2.6.4 and 8.1.12. The aim of the Rehabilitation and Closure Plan is to create the necessary conditions for the re-establishment and long-term propagation of indigenous native species in the areas disturbed by Alderon development and operation activities. Disturbed areas will be graded and contoured; a soil cover will be applied where it is considered necessary for vegetation growth; and vegetation will be established of similar density and diversity as that which exists in proximate areas. Further details on planned rehabilitation activities are presented in Section 2.6.4.</p> <p>The open pit will be decommissioned with the objective of long-term stability. Flooding of the pit will be allowed to occur naturally. The pit's walls will be excavated to a stable slope angle ("designing for closure") during mining operations. Pit slopes will be graded and contoured above and just below the final water surface for safety and access over portions of the pit perimeter. Further details are provided in Section and 2.6.4.</p>
	Fermont	Fermont	
	Le mouvement citoyen de Fermont	Le mouvement citoyen de Fermont	
	Wabush	Wabush	
	Innu of Matimekush Lac-John	Innu of Matimekush Lac-John	
Cumulative Effects	Fermont	<p>Participant is concerned with the proximity of the proposed Project to the Town of Fermont. Fermont is already exposed to dust from operating mining sites further away from the proposed Project location. Provides example of Labrador City residue "red snow" resulting from mining activity.</p>	<p>As detailed in Section 14.5 (Atmospheric Environment), the prevailing winds for the area, as recorded at the Wabush Airport, are from the west and the south, with winds blowing from the northeast towards Fermont only approximately 5 percent of the time. As well, it has been shown through dispersion modelling that the air quality zone of influence for the proposed Project is limited to the Project site and a few hundred meters beyond and therefore would not likely overlap with the zones of influence of the other nearby mines to result in a cumulative effect on the Town of Fermont.</p>

Table B.4
Issues Raised by Aboriginal Groups and Stakeholders – Water Resources

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Cumulative Effects on Water Resources	CRE	Lac Daviault is the head of the Moisie River watershed, what would be the dust, red water and cumulative effects on that watershed?	In the EIS, potential effects and mitigation for Water Resources have been assessed and identified. Lac Daviault is not in the same watershed as the Project, therefore there are no potential cumulative effects to the Lac Daviault/ Moisie River watershed. See Section 16.6 and 16.7 for more information about this assessment. Alderon will also implement several dust management and control measures to minimize dispersion of dust. More detail on dust management and control is provided in Section 14.6.
	Mouvement Citoyen de Fermont	Alderon should consider cumulative impacts on the entire northern region. Fermont is already surrounded by four iron mines and adding one more would contribute to additional dust and contamination of lakes and environment.	Water quality effects of the Project were reviewed in the EIS including the potential for increased sediment loading, ARD and metal leaching, ammonia contamination and red water. Effluent treatment system will be used at the TMF, and effluent will be monitored for compliance with regulatory limits. No residual or cumulative water quality effects are predicted. See Section 16.6 and 16.7 for more information about this assessment.
Potential Contamination of Water Bodies	Cabin Owners	An important issue for me is potential impacts to the lakes systems.	Mine effluent will be treated in compliance with regulatory standards, minimizing impacts to lake receiving waters. There will be no surface water runoff from the Project to Lac Daviault, therefore no surface water impacts are anticipated. Lac Daviault is not in the same watershed as Project, therefore there is no potential for red water release to the Lac Daviault/Moisie River watershed. See Section 16.6 for more information about this assessment.
	Fermont	Concern that Bloom Lake project has contaminated two adjacent lakes.	
		Will water bodies flowing into Lac Daviault be impacted? Will the Moisie River headwaters be affected?	
	CRE	Lac Daviault is the head of the Moisie River watershed, what would be the effects of dust, red water and cumulative effects on that watershed?	
	Wabush	Springs all through Daigle Point.	Lac Daigle is several kilometres to the west of the Project location in a separate watershed and will not be affected by the Project. Section 16.5 includes a description of the existing environment that may be affected by the Project.
How will tailings run off in the polishing pond affect Duley Lake / Long Lake to the north West?		The TMF will include a tailings pond followed by a polishing pond for sedimentation (settling) of fine particles. The residence time of water moving through these ponds is very long and therefore they will be able to remove particles to very small sizes. However, due to the potential for red water from the Project TMF, a flocculating red water system will be constructed at the polishing pond to further reduce particulate to extremely small sizes. This treatment system will ensure the provision of very low Total Suspended Solids concentrations to Long Lake/Duley Lake. The potential for acid rock drainage, metal leaching and ammonia contamination from TMF runoff is low and not considered a potential water quality effect. See Section 16.6 for more information about this assessment.	

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Contamination of Water Bodies (continued)	Labrador City	Concern that overflow of tailings will go into Riordan Lake.	Alderon will treat all effluent to meet regulatory standards prior to release into the environment.
	Le mouvement citoyen de Fermont	<p>What measures are in place to contain water discharge from the mine onto the surrounding territory?</p> <p>In the event of contamination of waters on the Québec territory, what measures are in place to restore/remediate contaminated areas?</p> <p>Are measures in place to protect Lake Perchard?</p> <p>How will Alderon Corp assure that groundwater is not contaminated in the region?</p>	<p>The key characteristics and features of the TMF and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2. All discharges from the TMF and polishing pond will flow north into Long Lake and are therefore not anticipated to affect Riordan Lake or Québec.</p> <p>See Section 16.6 for more information about this assessment.</p>
	Fermont	<p>If you add a mountain of waste over a mountain, will it modify the watershed?</p> <p>What about the groundwater? Is it located in the same watershed?</p>	<p>Surface water and groundwater divides will not be altered by the waste rock disposal areas. Disposal areas straddling two watersheds will be graded to preserve existing watershed divides to the extent feasible.</p> <p>See Section 16.6 for more information about this assessment.</p>
		Resident likes to swim/dive amongst the ice.	Existing recreational activities are not expected to be adversely affected by the Project. See Section 23.6 for more information.
	Fermont	Will the concentration process require the use of chemicals? Is there a risk of contamination?	<p>Alderon will treat all effluent to meet regulatory standards prior to release into the environment. Non-toxic flocculant use is expected to reduce the potential for fine particulate red water. Flocced particulate will be collected in the red water treatment system. Chemical processes would be contained in building or within mill yard, with spill containment and stormwater drainage system.</p> <p>The key characteristics and features of the TMF and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2.</p>

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Contamination of Water Bodies (continued)	Labrador City	The placement of the Rose Pit in the middle of an identified stewardship management area. Look at remedial steps that can be taken to minimize habitat loss prior to construction phase.	Alderon will enter into a Corporate Stewardship Agreement with the municipalities and the Eastern Habitat Joint Venture to mitigate loss of alternate Management Units. See Section 19.6.5 for more information about the assessment of potential effects and proposed mitigation for change in protected areas.
		What is the planned compensation for the water system that Rose Pit will occupy? There is quite a lot of water in the water system.	Alderon will enter into a Corporate Stewardship Agreement with the municipalities and the Eastern Habitat Joint Venture to mitigate loss of alternate Management Units. See Section 19.6.5 for more information about the assessment of potential effects and proposed mitigation for change in protected areas. Alderon will also prepare a Compensation Plan as required under the Fisheries Act. See Section 18.6 for more information. Headwater areas above the Rose Pit footprint will be preserved with clean water bypass diversion around the open pit. Headwater ponds will be monitored for water level effects. For more information see Section 16.6.
		Will the bog material be removed prior to the use as tailings impoundment? If the bog material is removed, will the tailings seep into the groundwater or into the lake?	Stripping of organic soils and overburden is required to provide a structurally sound base for tailings dams and dykes. This activity also minimizes the potential for dam seepage. Tailings seepage water is not expected to have sedimentation, ARD, metal leaching, ammonia contamination or red water concerns. See Section 16.6 for more information about the assessment and mitigation of effects on water resources.
	Innu Nation	Alderon will need to be cautious of bogs and streams around the mine, to make sure they do not flow in lakes and contaminate them.	Alderon will treat all effluent to meet regulatory standards prior to release into the environment. The key characteristics and features of the TMF and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2. See Section 16.6 for more information about the assessment and mitigation of effects on water resources.
	Wabush	Will there be equipment and supplies (for containment and recovery) located immediately next the railway on site, in the event of a spill?	Alderon has developed a detailed spill management plan that will include prevention design and practices, training, spill monitoring and surveillance, spill containment, collection, remediation and reporting. Spill containment and collection equipment will be kept on site and located strategically to ensure the most expeditious spill response. See Section 16.8 for more information.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Contamination Of Water Supply	Cabin Owners	An important issue to me is the potential for tailings to affect Quaniniche (our water supply).	The TMF is located primarily in the Long Lake watershed and is contained by a series of natural ridges, dams and dykes. All discharges from the TMF and polishing pond will flow north into Long Lake and are therefore are not anticipated to affect the Wabush Public Water Supply. The primary risk to the Town of Wabush water supply would be from a spill from the access road and rail infrastructure. In the case of an accident or malfunction, Alderon has developed an emergency response plan, to minimize, mitigate and remediate any effects of a potential spill to the Wabush water supply. See Sections 16.6, 16.8 and 23.8 for more information.
	Fermont / Wabush / Lab City	Concern about spills or run-off from rail, transmission or tailings potentially occurring in water supply/watershed area. There is no back up water supply for Wabush. Require a contingency to be in place. Questions include: • How you will treat the tailings so it doesn't leach into the drinking water supply? • Can surface water in the lake be affected? We take water from this lake.	
	Labrador City	The proposed road power line and rail line run through the Jean Lake management area and adjacent to the water supply and watershed in close proximity to residents. Consider an alternate route for rail line.	
Potential Effects on Water Quality	Cabin Owners	Will the water quality of lakes be affected? Will there be any impact on the watershed?	Alderon will treat all effluent to meet regulatory standards prior to release into the environment. The key characteristics and features of the TMF and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2. No adverse effects are anticipated to receiving water lakes or watersheds. See Section 16.6 for more information about the assessment and mitigation of effects on water resources.
	Cabin Owners / Fermont / Lab City	What will be the effects to water quality, including Long Lake, Lac Daviault and Mills Lake? Is there the potential for a spill or tailings drainage contamination of the local watershed? What will happen to the watershed if the lake is removed? Alderon should do preliminary investigation of active dewatering to reduce footprint and simplify reclamation e.g. centrifuge.	The TMF is located primarily in the Long Lake watershed and is contained by a series of natural ridges, dams and dykes. All discharges from the TMF and Polishing Pond will flow north into Long Lake and are therefore not anticipated to affect Lac Daviault or Mills Lake. Rose Lake will be removed as part of the open pit development. Headwater runoff from the Project location will be diverted around the open pit. A net increase in runoff to Pike Lake South is expected due to open pit dewatering. Alderon will treat all effluent to meet regulatory standards prior to release into the environment. The key characteristics and features of the TMF and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2. No adverse effects are anticipated to receiving water lakes, including Long Lake, or watersheds. See Section 16.6 for more information about the assessment and mitigation of effects on water resources.
Water Management	Fermont	What are the water sources for the Project and how will water be managed?	The water sources for the Project are: • Harvesting runoff water from the TMF; • Long Lake; • Open pit dewatering; and • Local groundwater pumping wells. A Water Management Plan is being developed to maximize the reuse of mine contact water in ore processing, dust suppression and other non-potable water uses. Further, the ore process recycles water many times to ensure that water conservation is maximized and that effluent discharge is minimized. See Section 2.6.2 and 16.6 for more information.

Table B.5
Issues Raised by Aboriginal Groups and Stakeholders – Wetlands

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Wetlands	Lab City / Wabush	Participants identified wetlands as an issue of concern.	Wetlands are common throughout the Project area, and the region. Overall, no wetland types will be lost completely as a result of Project activities. Some mitigation measures to address Project effects on wetland include minimizing interaction with wetlands by restricting construction activities to the PDA, maintaining natural drainage where possible and conduct progressive rehabilitation and wetland restoration. The assessment of Project effects on wetlands is provided in Section 17.6.
Wetland Stewardship Area	Wabush / Fermont / Lab City	How can loss of habitat be avoided in the conservation area? Or how will habitats within the conservation area be replaced? Mitigation measures proposed included dedicating a new wetland, use of money for interpretation sites, viewing area for Wabush narrows, education, clean up of historically impacted areas, mitigations, etc.	Alderon will enter into a Corporate Stewardship Agreement with the municipalities and the province (through the Eastern Habitat Joint Venture) to address the effects of the Project on Management Units. Possible mitigation measures for the effect on wetland habitat include funding education programs, interpretation sites, viewing areas at the Wabush narrows, dedicating a new wetland stewardship area or rehabilitating historically impacted areas. Additional information is provided in Section 17.6.

Table B.6
Issues Raised Regarding Freshwater Fish, Fish Habitat and Fisheries

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS	
Cumulative effects on fish and fish habitat	Innu Nation	Most elders and land users are afraid to hunt in the Wabush area because of the landscape and pollution. They are scared to eat the fish and animals. In the spring, summer and fall, Innu go hunt in that area. They are concerned with what partridges, beavers and other animals eat there. They are also concerned with contamination of fish.	Existing land and resource use by Aboriginal persons and potential health effects are discussed in Sections 22.5 and Chapter 25 of the EIS. In the EIS, potential effects to fish have also been assessed and mitigation identified. The Project is not anticipated to result in heavy metal or chemical contamination. See Section 18.6 for more information about this assessment.	
Fish population and species	Wabush	Will the Project have effects on fish?	In the EIS, potential effects to fish have been assessed and mitigation identified. This assessment determined that fish mortality as a result of the Project is not anticipated. Alderon will prepare a Compensation Plan as required under the Fisheries Act. See Section 18.6 for more information.	
		3-4 lb speckled trout are caught in area lakes.	In the EIS, potential effects to fish have been assessed and mitigation identified. This assessment determined that changes to trout populations are not anticipated. See Section 18.6 for more information.	
Fish habitat	Cabin Owners	An important issue for me is community impact due to the destruction of aquatic life.	In the EIS, potential effects to fish have been assessed and mitigation identified. This assessment determined that there will be minimal destruction of aquatic life as a result of the Project. Under Metal Mining Effluent Regulations, effluent must be tested monthly to verify that it is not acutely lethal to fish or Daphnia (water flea). Alderon will prepare a Compensation Plan as required under the Fisheries Act. See Section 18.6 for more information.	
	Le mouvement citoyen de Fermont	What measures will be taken to protect the aquatic system?		
	Innu Nation	Alderon needs to be cautious of bogs and streams around the mine, to make sure they do not flow in lakes and contaminate them.		
	Labrador City	Concern of fish migration between the small lakes south of Mills Lake to Mills Lake and Molar Lake.		The Project will not block passage of fish from Mills Lake to Molar Lake. See Section 18.6 for more information.
		What will happen to fish in the proposed tailings areas and nearby water system?		Alderon will prepare a Compensation Plan as required under the Fisheries Act. Fish will be relocated from areas to be dewatered. See Section 18.6 for more information.
How is fish habitat replaced?				
		There is a water system south of Riordan Lake that the local people fish. Concerns that the tailings area is just north of the water body and that it might affect fish.	The TMF is located primarily in the Long Lake watershed and is contained by a series of natural ridges, dams and dykes. All discharges from the TMF and polishing pond will flow north into Long Lake and are therefore not anticipated to affect fish habitat outside of the footprint watershed, including Riordan Lake.	

Table B.7
Issues Raised by Aboriginal Groups and Stakeholders – Birds,
Other Wildlife and their Habitat, and Protected Areas

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Cumulative Effects on Wildlife Species	Innu Nation	Most elders and land users are afraid to hunt in the Wabush area because of the landscape and pollution. They are scared to eat the fish and animals. In the spring, summer and fall, Innu go hunt in that area. They are concerned with what partridges, beavers and other animals eat there. They are also concerned with contamination of fish.	Existing land and resource use by Aboriginal persons and potential health effects are discussed in Sections 22.5 and Chapter 25 of the EIS. In the EIS, potential effects to birds and wildlife have also been assessed and mitigation identified. See Section 19.6 for more information about this assessment.
		There are cumulative effects from all of the projects in the area on the George River caribou herd.	This herd does not currently overlap the Project area, therefore potential effects from the Project are not anticipated. The range of the George River caribou herd is discussed in Section 19.5.3.
Potential Effects on wildlife Species	NNK	Alderon needs to make sure the land is protected and that the environmental impacts are minimal.	The purpose of the EA process is to identify mitigation measures to avoid or reduce environmental issues or effects. These are described throughout the EIS and summarized in Chapter 27.
	Innu Nation	Alderon should put a fence around the tailings and the pit to prevent wildlife (e.g. caribou and partridge) that go in these areas from eating the tailings.	The TMF will be contained by a series of natural ridges and containment dams/dykes. Key considerations in the design and planning of the TMF are described in Section 2.5.4 and 2.6.2. Section 19.6 includes an assessment of potential effects to wildlife and their mitigation.
	Innu Nation of Matimekush-Lac John	Concern about potential effects of the Project on caribou. Caribou are presently hunted near Smallwood reservoir.	Caribou herds do not currently overlap the Project area, therefore potential effects from the Project are not anticipated. The range of the George River caribou herd is discussed in Section 19.5.3.
	NNK	Community members have followed caribou into Labrador in the past and may again in the future. The caribou once came through the community but not anymore (there were 900,000 caribou, now there are around 80,000). One caribou came into the community over Christmas, and this was the first in 6 years. There are cumulative effects of all projects in the area on the George River caribou herd. The Project will potentially affect the George River herd, which is located just outside of the limits of Wabush.	

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on wildlife Species (continued)	Labrador City / Wabush	<p>Specific wildlife sightings reported by community members: lynx in southwest corner area; wolverine in area but no fisher; wolves (>6) are going around in circles around community; Mourning Dove (first sighting in 1981); American Robin (seen in Labrador West until Christmas); Eastern Bluebird (sighting in November); Gray-cheeked Thrush (sightings to the east) Bald Eagle (probable nest around Dolomite quarry); Great Horned Owl (nest is located on north end of Riordan Lake); Boreal owl (common); Hawk Owls (further east); phalaropes; bats (20-40 at cabin); marmot; and wolverine (uncertain); Great Horned Owl, Snowy Owl, otters, lynx, marmot, muskrat, moose. Barred Owl (great horned owl) nesting.</p> <p>Specific wildlife sightings reported by community members: wood duck are rare but active in incinerator gully; Harlequin duck are in Jean Lake and Wabush Pond during migration bird count; diver (June-October).</p>	<p>A description of existing wildlife is provided in Section 19.5. Baseline data collection for the EIS included aerial surveys for waterfowl completed in 2011, songbird survey completed in 2011 and 2012, and winter aerial surveys in 2012. Potential effects to wildlife have been assessed and mitigation identified.</p> <p>See Section 19.6 for more information about this assessment.</p>
Potential Effects on Waterfowl	Cabin Owners	An important issue for me is community impact due to the destruction of wildlife.	<p>Existing land and resource use is discussed in Sections 23.5 of the EIS. In the EIS, potential effects to birds and wildlife have also been assessed and mitigation identified.</p> <p>See Section 19.6 for more information about this assessment.</p>
Potential Effects on Wildlife Habitat	Le mouvement citoyen de Fermont	Is the Québécois territory at risk of deforestation in the future by the Alderon mine?	Alderon has no plans to harvest timber. A complete list of Project activities are included in Section 2.6.
	Innu Nation	Alderon needs to be cautious of bogs and streams around the mine to make sure they do not flow in lakes and contaminate them	<p>Alderon will treat all effluent to meet regulatory standards, including Metal Mining Effluent Regulations, prior to release into the environment. The key characteristics and features of the TMF and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2.</p> <p>See Section 16.6 for more information about the assessment and mitigation of effects on water resources.</p>
	Labrador City / Wabush	<p>Are the potential effects of the Project on wildlife being studied?</p> <p>What will be the effects on Jean Lake?</p> <p>Will there be any effect on the wildlife at Mills Lake from tailings drainage?</p>	<p>Jean Lake rapids will use existing crossing, dust will be controlled, and effects will be mitigated to existing area of effect. Effluent will be treated to ensure compliance with release criteria and will be tested monthly. Additional information is presented in Chapter 19 and 20.</p>

Table B.8
Issues Raised by Aboriginal Groups and Stakeholders – Species at Risk and Species of Conservation Concern

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on Species at Risk	Labrador City / Wabush	Specific wildlife sightings reported by community members: Harlequin duck are in Jean Lake and Wabush Pond during migration bird count; and Gray-cheeked thrush (sightings to the east).	A description of existing wildlife is provided in Section 19.5. Baseline data collection for the EIS included aerial surveys for waterfowl completed in 2011, songbird survey completed in 2011 and 2012, and winter aerial surveys in 2012. Harlequin Duck was not observed during these surveys but was reported at Jean Lake Rapids by a stakeholder. Section 20.5 includes a description of species at risk and of conservation concern within the Project area. Potential effects to species at risk and mitigation measures are identified in Section 20.6.
Potential Effects on Caribou	Innu Nation	Alderon should put a fence around the tailings and the pit to prevent wildlife (e.g. caribou and partridge) that go in these areas from eating the tailings.	The TMF will be contained by a series of natural ridges and containment dams/dykes. Key consideration in the design and planning of the TMF are described in Section 2.5.4. Sedentary herds of caribou are not present within the Project area and are therefore not anticipated to be affected by the Project. Section 20.5 includes a description of existing species at risk and of conservation concern that are found within the Project area.
	NNK	Community members have followed caribou into Labrador in the past and may again in the future. The caribou once came through the community but not anymore (there were 900,000 caribou, now there are around 80,000). One caribou come into the community over Christmas, and this was the first in 6 years. There is a third herd of caribou that has been identified by a Québec biologist Natalie d’Astous near the Québec -Labrador border. This herd could be affected by the Project.	Sedentary herds of caribou are not present within the Project area and are therefore not anticipated to be affected by the Project. Section 20.5 includes a description of existing species at risk and of conservation concern that are found within the Project area.

Table B.9
Issues Raised by Aboriginal Groups and Stakeholders – Historic and Cultural Resources

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Disturbance of archaeological sites	Fermont	Arrow heads were reported to have been found at an unconfirmed location on Lac d'Aigle near Fermont, Québec. It was reported by the informant that the artifacts were analyzed and dated to the first Innu.	Section 21.5 includes a description of historical and cultural resources in the vicinity of the Project. The closest point on Lac d'Aigle to the Project is approximately 7.3 km away and therefore is not anticipated to be affected by the Project. Section 21.6 includes the assessment of effects from the Project on archaeological sites.
Potential effects on burial sites	Labrador City	Concern that there is a cemetery on the route.	Section 21.5 includes a description of historical and cultural resources in the vicinity of the Project. Background research and informant interviews did not identify any information to suggest there is a cemetery in the vicinity. However, there is a cemetery with a cross located south of the Project area that is a registered archaeological site with the Provincial Archaeology Office. The Innu visit the site frequently and maintain the cemetery, which is located approximately 70 km southeast of the Project. This site is not anticipated to be affected by the Project. Section 21.6 includes the assessment of effects from the Project on burial sites.

Table B.10
Issues Raised by Aboriginal Groups and Stakeholders – Current Use of
Lands and Resource for Traditional Purposes by Aboriginal Persons

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Cumulative Effects on Use of Lands and Resources for Traditional Purposes by Aboriginal Persons	Innu of Uashat mak Mani-Utenam	Expressed concerns about other mining companies in area and cumulative effects on traditional territory. Cumulative effects are particularly important to address. Community members feel more and more dispossessed of their land. Comments included: <ul style="list-style-type: none"> We thought development on our territory was over. Is still room for other companies in that area? Alderon said they would take care of the environment, but we cannot use the land in that area anymore. Everything has been destroyed, water and animals. Some people go on land just for wellbeing and this cannot be done any more in this area. 	The purpose of the EA process is to identify mitigation measures to avoid or reduce environmental issues and effects. Cumulative effects on Current Use of Lands and Resources for Traditional Purposes by Aboriginal Persons are assessed and evaluated in Section 22.8.
Potential Effects on Traditional Land Use Activities	Innu Nation	Alderon could contribute in the Innu Nation community by providing funding for an outpost program for Innu who want to participate in harvesting activities.	Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1. Alderon is currently negotiating a benefits agreement with Innu Nation.
	Naskapi Nation of Kwawachikamach	Alderon should set aside money for community members to hunt in areas far from their community (i.e., for skidoos). The caribou once came through the community but no longer. At one point there were 900,000 caribou; now there are around 80,000.	Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1.
	Innu Nation	In the spring, summer and fall, community members hunt in the area. They are concerned with what partridges, beavers and other animals eat there. They are also concerned with contamination of fish.	A human health risk assessment was completed for the Project reviewing potential pathways for contamination. This assessment determined that there is a low risk of effect to country foods. These issues and analyses are provided in Chapter 25. An assessment of current land and resource use by Aboriginal persons in the Project area is presented in Chapter 22.
	Innu of Matimekush - Lac John	The Project overlaps with their traditional territory. There are potential effects of the Project on land use in the area.	An assessment of current land and resource use by Aboriginal persons in the Project area is presented in Chapter 22.
	Naskapi Nation of Kwawachikamach	Do not currently practice land use activities in the Project area but still have land claims in Labrador. Currently, the Naskapi do not go into Lab West. Will share maps of their traditional hunting routes and historic sites with Alderon.	Information on current land and resource use that has been made available to Alderon is presented in Chapter 22. Existing land and resource use and the status of land claims are described in Sections 22.2.3 and 22.5.
	Innu Nation	Alderon could contribute in the Innu Nation community by providing funding to build cabins on the territory.	Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1. Alderon is currently negotiating a benefits agreement with Innu Nation.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Interaction with Existing Aboriginal Rights / Title	Innu Nation	Consider all of Labrador as their traditional territory and will not surrender their rights.	An assessment of current land and resource use by Aboriginal persons in the Project area is presented in Chapter 22. Existing land and resource use and the status of land claims are described in Sections 22.2.3 and 22.5.
	Innu of Matimekush - Lac John	Project overlaps with their traditional territory.	
	Naskapi Nation of Kwawachikamach	They have an unresolved land claim deep in Labrador territory. They have followed the caribou into Labrador in the past and may again in the future.	
	Innu of Uashat mak Mani-Utenam	Confirm that the Project area is claimed territory as it is located within their ancestral territory. Their traditional families own the land covered by the Project.	Alderon is committed to building mutually beneficial and respectful relationships with all Aboriginal groups. Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1.
	Innu of Matimekush - Lac John	Wish to be engaged separately from the Innu of Uashat mak Mani-Utenam, even though they share the same territory. Any benefit agreement must be negotiated with both groups independently.	
	Innu of Uashat mak Mani-Utenam	Are there other Aboriginal groups involved on the Kami Project?	

Table B.11
Issues Raised by Aboriginal Groups and Stakeholders –
Other Current Use of Lands and Resources

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Visual Aesthetics	Cabin Owners	Participants concerned they will be able to see mine from their properties	Viewshed analyses and before and after photosimulations of the Project from select vantage points have been included in the EIS. These show that the Project will be minimally visible from the three municipalities. The Project will be visible from some cabin locations. See Section 23.6.4 for the viewshed analysis and photosimulations.
	CIM Conference / Fermont / Le mouvement citoyen de Fermont	Mining in Labrador, but most of the negative impacts are going to be on the Fermont side. Concern that the Project will create visual pollution, particularly waste rock pile. Desire to preserve untouched visual aesthetic in Fermont. Questions include: Will the mine manage the site in a manner that makes it not visible from Fermont? What will I see from my home?	To minimize effects on the citizens of Fermont, the Rose South Waste Rock Disposal has been relocated approximately 5 km to the east. Due to the relocation of the Rose South Waste Rock Disposal Area, the Project will be minimally visible from Fermont. A before and after photosimulation was completed for Fermont, from the western shore of Lac Daviault and from the peak of Mont Daviault. This simulation showed that the Project is minimally visible. See Section 23.6.4 for the viewshed analysis and photosimulations. Section 2.5.3 includes a description of the waste rock disposal area.
	Fermont	For the visual aesthetics study, two points of view should be assessed: from Fermont. from top of hill by Lac d'Aviault. A lot of people hike there and there is a beautiful viewpoint we would not want compromised by the waste rock pile.	
	Labrador City	Concern that other lakes will have the same visual impact issue as Wabush Lake.	Alderon will treat all effluent to meet regulatory standards prior to release into the environment. In addition, the treatment is designed to minimize red water. The key characteristics of the TMF and effluent treatment infrastructure are described in Section 2.5.4 and 2.6.2. The issue of red water and measures to mitigate any potential effects are assessed in detail in Chapter 16.
	Labrador City / Wabush	Will there be any visible impacts to the Duley Lake Park area (e.g. such as trucks driving around or waste rock piles)?	Viewshed analyses and before and after photosimulations of the Project from select vantage points have been included in the EIS. Based on the viewshed analysis, it is not likely that the Project will affect the view from the camp grounds near the Duley Lake Provincial Park Reserve at the northwestern end of Long Lake. The Rose South Waste Rock Disposal Area will be minimally visible from the dock at the Duley Lake Provincial Park Reserve. See Section 23.6.4 for the viewshed analysis and photosimulations.
	Wabush	Power lines are a visual issue.	Viewshed analyses and before and after photosimulations of the Project from select vantage points have been included in the EIS. Based on the viewshed analysis, the power line will likely be visible from adjacent areas. However, the power line was relocated along the road/rail right-of-way to limit visual effects from the Jean Lake hiking trail. See Section 23.6.4 for the viewshed analysis and photosimulations.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Access to Property	Wabush / Cabin Owners	<p>Proposed rail line follows current access used by cabin owners. Many cabin and camp owners, particularly those at Mills Lake are concerned with how their access will be affected by the railway, conveyor, crusher, and pit. Questions include: Will the proposed road along the rail line be a public roadway? Will access be provided to cabin properties that are presently only accessed by ski-doo or ATV? What steps will be undertaken to ensure their access? How soon before cabin owners are evicted? Will Mills Lake Road be plowed for access this winter? In the past, a loader clearing snow roughed up the road.</p>	<p>The potential Project effects on access, including snowmobile trails, are included in the assessment of the Project on Other Use of Lands and Resources. Alderon will work with local user groups to address Project effects. The rail line will not cross any paved roads.</p> <p>Alderon has been engaging with cabin owners in the Project area and has developed a strategy to mitigate adverse effects on cabin owners. Alderon will continue its engagement with cabin owners to determine appropriate mitigation measures for individual cabin owners, as applicable.</p> <p>See Section 23.5, and 23.6 for more information.</p>
Potential Effects on Cabins	Cabin Owners / Labrador West Status for Women / Le mouvement citoyen de Fermont / NNK / NCC	<p>Effect of the Project on cabins in an important issue. There are houses and cabins close to the Project, particularly in the Duley Lake area, that could be affected by the Project.</p> <p>What will Alderon do with the cabins that will be impacted by mines? What measures will be in place to protect cottages and cabins in the area?</p>	<p>The potential Project effects on cabin use are included in the assessment of the Project on Other Use of Lands and Resources. Alderon has been engaging with cabin owners in the Project area and has developed a strategy to mitigate adverse effects on cabin owners. Alderon will continue its engagement with cabin owners to determine appropriate mitigation measures for individual cabin owners, as applicable.</p> <p>See Section 23.5.2.1, 23.6.3</p>
	Cabin Owners / Labrador City / Fermont / Wabush	<p>Participants want to know if they will lose their cabins, especially those that are planning renovations or upgrades to their properties. Questions asked: When / where / how will each cabin owner / cabin be affected? What will happen to cabins and cabin owners in the area? How would Alderon compensate cabin owners? How is the value of the cabins determined? Will Alderon meet again with cabin owners? Some people believe that Alderon will compensate for discomfort, even if owners have access and get to keep their cabins. Suggested mitigation: Relocate owners to private accessible land. Rebuild cabins in another area accessible by road with electricity.</p>	
	Labrador City / Fermont / Wabush	<p>Concern that the Project will affect the quality of cabin life due to pollution, noise, vibrations, dust and other effects.</p>	

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on Cabins (continued)	Labrador City / Wabush	Corrections to cabin map and ownership.	Alderon is conducting an inventory of existing cabins and owners to ensure that the most accurate and up-to-date information is in-hand. See Section 23.6.3 for more information.
	Cabin Owners	Concern about how tailings will affect cabin located on Loon Lake.	Potential effects to water resources from Project activities are assessed in Chapter 16. There are no effects anticipated on Loon Lake as a result of the Project. The key characteristics and features of the TMF are described in Section 2.5.4 and 2.6.2. See Section 2.4 for Project location.
		Although Mills is not part of the start up operations, when will cabins there be affected? How will they be compensated? Do these cabin owners proceed with renovations on their cabins now?	The Project does not include any activity at Mills Lake. See Section 2.4 for Project location. Section 23.5.2.1 and 23.6.3 include an assessment of potential effects on cabins and proposed mitigation measures.
		Cabin owner at Duley wants to get electricity as a result of the Project.	Alderon has been engaging with cabin owners in the Project area and has developed a strategy to mitigate adverse effects on cabin owners. Alderon will continue its engagement with cabin owners to determine appropriate mitigation measures for individual cabin owners, as applicable. See Section 23.5.2.1, 23.6.3
Potential Effects on Property Value	Cabin Owners	An important issue for me is the depletion of property values.	Given the anticipated population growth in western Labrador and existing demand for housing, property values in the municipalities are not likely to decrease as a result of the Project. Alderon has been engaging with cabin owners in the Project area and has developed a strategy to mitigate adverse effects on cabin owners. Alderon will continue its engagement with cabin owners to determine appropriate mitigation measures for individual cabin owners, as applicable. See Section 23.5.2. and 23.6.3
	Wabush	What will effect be on property values by rail, increased traffic and heavy equipment traffic?	
Potential Effects on Fishing	Wabush	Concerns identified about Project effects on fishing. E.g. cabin owner utilizes a fishing area near Rose South Waste Rock disposal area. Is he permitted access to that location this summer?	Project-related disruptions will be minimal during Summer-2012 as construction is not scheduled to commence until late 2013, provided EA approval is received. See Section 2.6 for more information about the Project Schedule. More information about potential effects to fishing activities in the Project area is included in Section 23.6.
Potential Effects on Hunting	Cabin Owners	Will cabin owners in the Mills Lake & Rose areas still be able to hunt and harvest wood? A participant advised that drillers asked hunters to put their shotguns away, even though hunting has been taking place there for approximately 30 years. Will there be restrictions on hunters that presently access the area?	Cabin owners will still be able to continue to practice their land and resource use activities, however there will be access restrictions at the Project site for the safety of both workers and the public. See Section 23.5.5, 23.6.2 and 23.6.3.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on Land Use Activities	Labrador City	Are there issues around Duley Lake? Will there be a road access going through Duley Park? There are a lot of activities in that area and we are concerned that the Project will affect this.	There will be no Project roads in Duley Lake Provincial Park Reserve. Access to the Project site will be made through the access road located east of Wabush. In the EIS, potential effects on land-use activities at Duley Lake Provincial Park Reserve are assessed and mitigation measures are identified. See Section 23.6.1 for information about this assessment and Section 2.4 for information about the Project location.
	Cabin Owners	Participant expressed concern with a proposed high voltage power line running behind houses in Wabush.	The location of the proposed power line was re-routed in response to community concerns. See Section 23.6.4 for viewshed analyses and before and after photosimulations of the Project, including the power line, from select vantage points.
	Labrador City	How can loss of habitat be avoided in the conservation area? Or how will habitats within the conservation area be replaced?	Alderon will enter into a Corporate Stewardship Agreement with the municipalities and the Eastern Habitat Joint Venture to mitigate loss of alternate Management Units. See Section 19.6.5 for more information about the assessment of potential effects and proposed mitigation for change in protected areas.
	Le mouvement citoyen de Fermont	Will water planes still be able to fly and land with no restrictions?	Water planes will still be able to use the existing marinas in western Labrador and Fermont. See Section 23.5 for more information.
	Wabush	There is a high population growth in Wabush. Concerned that with the railway will limit the Town expansion. Alderon should assess the potential impacts of the railway on future town planning.	To address this issue, Alderon moved the rail line further away from the Town of Wabush to minimize interaction with future town development planned in the southeast area. See Section 2.5.7 and 2.6.2
Potential Effects From Blasting Operations	Cabin Owners	Will there be blasting operations on weekends?	Following the EA approval, a Blasting Plan will be developed and implemented in compliance with all applicable laws, regulations and industry best practices, and with consideration of safety, environmental and social issues as identified throughout the EIS. There may be blasting on weekends. See Section 2.6.2 for more information.
	Le mouvement citoyen de Fermont	Will the time of blasting be coordinated with other mines in the region to avoid blasting all at once?	Following the EA approval, a Blasting Plan will be developed and implemented in compliance with all applicable laws, regulations and industry best practices, and with consideration of safety, environmental and social issues as identified throughout the EIS. See Section 2.6.2 for more information.
	Fermont / Lab City / Wabush / Cabin Owners	Concern about noise pollution from, blasting by cabin owners (Round Rail, Riordan Lake), residents, and recreation users at Duley Park. Residents can hear operations located further away than the Project so they are concerned about noise impacts from operations that are very close. Will the noise break windows or dishes?	Following the EA approval, a Blasting Plan will be developed and implemented in compliance with all applicable laws, regulations and industry best practices, and with consideration of safety, environmental and social issues as identified throughout the EIS. See Section 2.6.2 for more information. Effects of the Project on the atmospheric environment, including air quality, noise, vibration and dust have been assessed and mitigation measures identified. During Project activities, blast noise and vibration will be monitored and will comply with regulatory standards. See Section 23.5.2.1, 23.6.3 and Chapter 14 (Atmospheric Environment) for more information.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on Recreational Activities	Cabin Owners	An important issue is community impact from the movement of heavy equipment in a recreational area. Exploration activities have disrupted recreational activities.	Use of heavy equipment will be restricted to the Project site and will not travel through designated recreational areas such as campgrounds or parks. See Section 23.6.2 for a description of potential effects and mitigation measures for recreational activities and land use. The effects on noise, including noise from equipment has also been assessed in the EIS (see Chapter 14, Atmospheric Environment, for this assessment)
	Cabin Owners / Fermont / Le mouvement citoyen de Fermont	Potential effects on Lac Daviault, recreational activities, boating, planned camp ground are important for community members. Recreational activities occur in proximity to the Project and they are concerned that it will affect activities.	The Project will not overlap with Lac Daviault and will therefore not affect current use of the lake for boating or camping. Based on viewshed analysis only some waste rock areas will be visible from the western shores of Lac Daviault. Although blasting may be audible, vibrations will not be felt on the western shore of Lac Daviault. Modeling of noise levels resulting from the Project will not exceed Health Canada guidelines at Lac Daviault. Modeling of dust dispersion indicates that dust levels at Lac Daviault will not be elevated as a result of the Project. See Section 23.6.2, 23.6.4 and Chapter 14 (Atmospheric Environment)
	Le mouvement citoyen de Fermont	How can you assure that the Fermont marina and swimming activities will not be polluted by mining operations?	The Project will not overlap with waterbodies in Québec. Modeling also indicates that there will not be elevated levels of either dust or noise in Québec as a result of the Project. See Section 2.4 for information about the Project location, Section 23.6.2 for the assessment of activities/use that may be affected by the Project, and Chapter 14 for details about the assessment of effects on the Atmospheric Environment.
	Fermont	There is a trail that goes approximately 2km from pit, will it be affected?	The Project will not overlap with the trail. See Section 23.5.4 for a description of outdoor recreation activities that may be affected by the Project, change in access is assessed in Section 23.6.1.
	Le mouvement citoyen de Fermont	What will be the security perimeter to avoid the risks from flying rocks and particles on recreational areas in the town of Fermont?	A security perimeter will be developed and implemented as part of the Blasting Plan. Rocks and particles resulting from blasting in the open pit are not anticipated to affect the Town of Fermont. Section 23.6.2 for the assessment of activities/use that may be affected by the Project, and Chapter 14 (Atmospheric Environment) for more information.
	Le mouvement citoyen de Fermont	Request study on the impacts on tourism and recreational activities during the duration of the Project.	An assessment of effects on recreational use of lands and resources is included in Section 23.6.2. An assessment of effects on recreational infrastructure within Labrador City, Wabush and Fermont is included in Section 24.6.1 (Community Services and Infrastructure). An assessment of effects on tourism businesses is included in Section 26.6 (Economy, Employment, and Business).
	Innu Nation	Alderon could contribute in the Innu Nation community by providing funding for hockey tournament.	Alderon is committed to engaging Aboriginal groups throughout the EA process and the life of the Project. Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on Recreational Activities (continued)	Wabush	An upset or spill from trains may affect recreational use of area.	Although a train derailment is unlikely and has not been experienced in western Labrador to date, assessment of the potential effects and identification of mitigation measures for such a derailment on land and resource use is included in the EIS as part of the assessment of Accidents and Malfunctions. See Section 23.8 and 23.9.3 for more information about this assessment.
Potential Effects on Snowmobile Trails	Wabush	Concerns about proposed changes and accessibility to snowmobile trails. Proposed railway will intersect the current snowmobile trails. Snowmobilers do not like dead-end trails, they prefer loops.	Alderon will work with local snowmobile groups to address Project concerns. See Section 23.5.4 and 23.6.1.
	Wabush	Are there any plans for crossing areas, installation of culverts, stop lights or signs? Need to implement proper safety precautions for travel back and forth from the mill, as it may interact with snowmobile trails.	

Table B.12
Issues Raised by Aboriginal Groups and Stakeholders – Community Services and Infrastructure

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Availability of Housing for Workers	Wabush / Fermont / Lab City	Concerns with Fly-In / Fly-Out policy and temporary work camps. Support for housing full time workers in communities of Labrador City and Wabush. Concern with influx of workers in Fermont (workforce is fully employed). Questions include: <ul style="list-style-type: none"> Where will workers come from and where will they live? Will permanent housing be built and if so what will happen after the Project is completed? 	Alderon will engage with the relevant agencies and organizations, particularly the Labrador West Regional Task Force and the Labrador West Community Advisory Panel, to provide Project information and to identify and discuss potential Project-related implications for local services and infrastructure, including those of Project-related in-migration. Alderon will also engage with government agencies and communities to establish a Project accommodations strategy, which will address housing concerns. The strategy may include measures such as the use of temporary accommodations and the development of new housing. Alderon will consider employing a fly-in / fly-out workforce during the construction phase of the Project. During operations and maintenance, Alderon aims to hire a residential workforce. Additional information on housing is provided in Sections ; 24.5.13; 24.6.1 and 24.6.2.
	Cabin Owners	An important issue for me is housing.	
	Lab West Status of Women	Main issues include housing, specifically low-income housing and availability of construction workers to build new houses. Concern about the potential effects of temporary construction workers in Lab West. Will couple’s accommodation be provided during construction? Permanent and temporary housing is an issue. Industry needs to be involved to solve these issues.	
Temporary Construction Camp	Labrador City	Temporary workcamps could help with the severe housing issue but only for temporary accommodations during the construction phase of the Project. There should not be camps developed in residential areas, including Harrie Lake subdivision. Work camps shouldn’t impact municipal infrastructure (sewage, recreation, etc.) Consultants have provided overtures on where camps can go in terms of artesian wells. The Town should be part of planning and discussion for construction camp. There is a land availability issue in Labrador City. Questions include: <ul style="list-style-type: none"> Is Alderon considering building workcamps for workers? Why don’t companies build apartments instead of workcamps that can be used by residents after the Project? 	
	Wabush	Want sub-contractors to stay in existing workcamps. Size it to accommodate those people. Camp would be self-sufficient - own sewage treatment, etc. Alderon would transfer this to Wabush once construction phase is complete.	
	Wabush	Is Alderon planning to build workcamps or implement a fly-in, fly-out operation?	
Increased Air Travel	Le mouvement citoyen de Fermont	Will measures be in place to ensure that the airport system available to the region is not under ‘heavy’ pressure and leading to increase in tariffs?	Alderon will engage with the relevant agencies and organizations, particularly the Labrador West Regional Task Force and the Labrador West Community Advisory Panel, to provide Project information and to identify and discuss potential Project-related implications for local services and infrastructure, including those of Project-related in-migration. Alderon will work with the Town of Wabush to accommodate increased air traffic, and associated activity at the airport. More information is presented in Sections ; 24.5.11; 24.6.1 24.11.
	Wabush / Lab City	Airport operates one runway and no fire hall is located at the airport. This restricts the landing of larger aircraft. Concern of increased traffic at / around airport from Project. Request that Alderon lobby to have additional airlines service the airport.	

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Increased Railway Traffic	CIM Conference	Aren't you concerned that the QNS&L railway is becoming over utilised?	The capacity of the QNS&L has been studied for many different potential future traffic volumes, including traffic associated with the Project. These studies have identified infrastructure improvement strategies that will maintain acceptable levels of service for all traffic on QNS&L. Implementation of these strategies have been incorporated into the negotiations for a rail haulage contract between Alderon and QNS&L. Additional information is found in Chapter 2 and Section 24.5.11.1.
	Labrador City	The actual railway line and its railway are issues of concern. Has Alderon consulted with QNS&L about the projected total rail traffic in 2015-2020?	
	Innu of Matimakush Lac-John	Increased traffic from the Project may slow down the passenger train and delivery of goods (food and fuel) from Sept-Iles to Schefferville	
Increased Road Traffic	Le mouvement citoyen de Fermont	What measure will be in place by Alderon to minimize the negative impacts concerning the use of Route 389?	Alderon will build a new road to avoid Grenfell Drive to access the mine site, eliminating concerns with increased traffic and safety. The location of this road is shown in Section 2.5.5. More information about current traffic conditions and potential effects from the Project is found in Sections 24.5.11; 24.6.1; 24.11.
	Cabin Owners	An important issue to me is that Duncread is being used and abused with regards to speed and the number of trucks.	
	Wabush / Fermont / Lab City	Concern of heavy equipment and increased traffic on Grenfell Drive in Wabush. Concerns include road maintenance costs, vibration, property values, and child safety. The road is already overloaded. Questions include: <ul style="list-style-type: none"> • Can the project utilize alternative roads? • Was any consideration given to accessing the site from Hwy 500 / 389 through Duley Lake provincial park to west of Long Lake? • Could the road be widened and traffic lights installed? 	
Potential Effects on Community Infrastructure	Fermont / Lab City / Le mouvement citoyen de Fermont	Will blasting affect foundations or municipal infrastructure? Will you assess all existing foundations?	To address concerns about blasting, Alderon has committed to developing a Project-specific Blasting Plan. Effects of the Project on the atmospheric environment, including air quality, noise, vibration and dust have been assessed and mitigation measures identified. During Project activities, blast noise and vibration will be monitored and will comply with regulatory standards. Alderon will establish safety zones for blasting and will follow best practices to minimize damage from blasting. See Section 24.6.1 and Chapter 14 (Atmospheric Environment) for more information.
	Le mouvement citoyen de Fermont	Will blasting have an impact the communication towers and make everyday life difficult to the people of Fermont?	
	Labrador City	Impacts on community services and quality of life.	
	Wabush	An increased population of the community will create other issues including sewage treatment. No operational sewage plant in industrial area, maybe Alderon can partner for future benefit.	
	Wabush	Public Works and residents identified potential and additional wear and tear of public roads due to project.	

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on Community Infrastructure (continued)	Wabush	Rail and road crossing located between Jean Lake and Wahnahnish Lake is located exactly where the water pump house is currently situated for the Town of Wabush.	The Project road and rail crossing at Jean Lake / Wahnahnish Lake will make use of an existing crossing. Alderon is working with the Town of Wabush to ensure that effects on municipal infrastructure are identified and mitigated. See Section 24.6 for more information.
Potential Effects on Community Services	Lab West Status of Women	The main issues identified included health services, childcare, and community infrastructure (stores and grocery store). Daycare, social impact of mining work and lack of childcare, employment issues in the service sector.	Alderon will engage with the relevant agencies and organizations, particularly the Labrador West Regional Task Force and the Labrador West Community Advisory Panel, to provide Project information and to identify and discuss potential Project-related implications for local services and infrastructure, including those of Project-related in-migration. More information is found in Sections 10.4; 24.5; 24.6.1; 24.7.
	Fermont	Others use the services in Fermont such as health services, arena, pool, etc. We are worried about the effect of the new project on our municipal services. In the service sector, it is a challenge to maintain and retain employees. There is a lack of workforce and support services. Industry needs to be involved to solve these issues.	
	Wabush	Fire fighting service was removed from Wabush airport by Transport Canada when jet service was removed. Wabush and Labrador City do not have capacity to provide fire fighting service.	Alderon will engage with the relevant agencies and organizations, particularly the Labrador West Regional Task Force and the Labrador West Community Advisory Panel, to provide Project information and to identify and discuss potential Project-related implications for local services and infrastructure, including those of Project-related in-migration. Additional information is available in Sections 10.4; 24.5.6.
	Innu Nation	Innu Nation have a program in place with Voisey's Bay, where every person over 60 years old gets a monthly allowance of approximately \$500. Suggested that Alderon should consider such a program, as this has been very helpful for the community.	Alderon is committed to building mutually beneficial and respectful relationships with all Aboriginal groups. Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1. Alderon is currently negotiating a benefits agreement with Innu Nation.
Potential Effects on Recreational Infrastructure	Fermont	Concern that there are only two good beaches in the entire area (Fermont and Duley Lake).	Due to their spatial separation, the Project will not interact with the beach areas on Long Lake and in Fermont. More information regarding Project location is provided in Section 2.4.
		Need to identify how to enhance quality of life, perhaps with the creation of a new recreational area.	An assessment of the effects of the Project on community health, including quality of life, is provided in Section 25.6.
		Potential effects of the Project on land use such as snowmobile and ski.	Alderon will continue to engage with local snowmobile groups to address Project concerns. See Section 23.5.4 and 23.6.1.
		Potential effects on Lac Daviault, recreational activities, boating, planned camp ground - these are important for Fermont community members.	The Project will not overlap with Lac Daviault and will therefore not affect current use of the lake for boating or camping. Based on viewshed analysis only some waste rock disposal areas will be visible from the western shores of Lac Daviault. Modeling of noise levels resulting from the Project will not exceed Health Canada guidelines at Lac Daviault. Modeling of dust dispersion indicates that dust levels at Lac Daviault will not be elevated as a result of the Project. See Section 23.6.2, 23.6.4 and Chapter 14 (Atmospheric Environment)

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on Recreational Infrastructure (continued)	Fermont	There is a trail that goes approximately 2 km from pit, will it be affected?	Existing recreational infrastructure within the Project area is described in Section 24.5.9. Access to the trail is not anticipated to be affected by the Project.
		What are the effects on ice on Daviault Lake during blasting?	To address concerns about blasting, Alderon has committed to developing a Project-specific Blasting Plan. Effects of the Project on the atmospheric environment, including air quality, noise, vibration and dust have been assessed and mitigation measures identified. During Project activities, blast noise and vibration will be monitored and will comply with regulatory standards. See Section 23.5.2.1, 23.6.3 and Chapter 14 for more information.
	Labrador City	Project is located in some of the last wilderness in the area.	Section 23.5 includes a description of current land use in the vicinity of the Project. With the exception of the two existing mines, western Labrador can be classified as largely undeveloped. The effects of the Project on the use of land and resources are assessed in Section 23.6.
	Labrador City / Wabush	Concerns about the potential effects of dust and noise in the Duley Lake Park are which would disturb park owners and users.	Noise levels and dust emissions have been measured and predicted carefully to help design the Project so that regulatory standards are met. Occasionally, operating noise might be audible in the distance, but will be within regulatory limits and monitored routinely for compliance with those limits. Mitigation measures for all potential effects, including dust emissions have been identified, including dust suppression, equipment preventative maintenance programs, and engineering controls such as covered conveyors. More information about potential effects of dust and noise are provided in Section 14.6.
	Wabush	Jean Lake and Elephant Head Road are recreation areas.	The Project will not overlap with the recreation areas at Jean Lake and Elephant Head Road. Alderon is working with the Town of Wabush to ensure that effects on municipal infrastructure are identified and mitigated. See Section 24.6 for more information.
	Wabush	Potential effects on snowmobile trails. It will be important to discuss with snowmobile association.	Alderon will work with local snowmobile groups to address Project concerns. See Section 23.5 for a description of existing snowmobiling activity and Section 23.6 for an assessment of Project effects on snowmobiling and associated mitigation measures.

Table B.13
Issues Raised by Aboriginal Groups and Stakeholders – Health and Community Health

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Cumulative Effects on Health and Community Health	Fermont	Cumulative effects of all the expansions in current Project, and with Alderon, potential effects on <u>quality of life in Fermont.</u>	The assessment and evaluation of cumulative environmental effects resulting from the Project in combination with other developments is an important and integral part of this EIS. The cumulative effects of the Project in combination with other developments on Health and Community Health are assessed and evaluated in <u>Section 25.7.</u> Existing knowledge on the known effects of other past projects and activities has been reviewed and has informed the environmental effects assessment. The VEC analysis considers these issues and effects. The community of Fermont, as well as Labrador City and Wabush, are considered within the study area (LSA) that has been established for this VEC and its effects assessment. See <u>Section 25.2.</u>
		Assess cumulative effect of the Project and other developments on quality of life in Fermont. There are currently many different things happening in Fermont in terms of development, mining projects, housing.	
		There is a study on the current situation in Labrador regarding the impact on mining on human health. Asks the proponent to evaluate all impacts that the mine may have on the health of people of Fermont and Newfoundland.	
Visual Aesthetics	Cabin Owners	I do not want to look out my window at a plant.	The possible visibility of Project components from nearby communities, cabins and other recreational areas has been a key consideration in Project planning and the EA. Viewshed analyses and before and after photosimulations of the Project from select vantage points have been included in the EIS. These show that the Project will be minimally visible from the three municipalities. The Project will be visible from some cabin locations. See <u>Section 23.6.4</u> for the viewshed analysis and photosimulations. Noise, dust and other such disturbances are modeled and assessed in Chapter 14, based on applicable standards in the relevant jurisdiction. The results of each of these VEC analyses have been integrated into and informed the assessment for Health and Community Health as presented in Chapter 25.
	CIM Conference	You're mining in Labrador, but most of the negative impacts are going to be on the Fermont side, mainly for dust, noise and visual impact from the waste stockpile. Are the requirements for dust, noise, etc... different in NL than in Québec?	
		What will I see from my home?	
	Fermont	Concern that the Project will create visual pollution. Desire to preserve untouched visual aesthetic in Fermont.	
		For the visual aesthetics study, two points of view should be assessed: one from the Town of Fermont and the view from the top of the hill by the Lac d'Aviault. It is important that this point of view be assessed because a lot of people hike there and there is a beautiful viewpoint, we would not want it to be compromised by the waste rock pile.	
		Will the mine manage the site in a manner that makes it not visible from Fermont?	
	Le mouvement citoyen de Fermont	Will the mine manage the site in a manner that makes it not visible from Fermont?	
	Labrador City	Concern that other lakes will become similar to Wabush Lake and have same visual impact issue.	
Labrador City / Wabush	Will there be any visible impacts resulting from the Projects in the Duley Lake Park area, such as trucks driving around or waste rock piles?		
Wabush	Power lines are a visual issue.		

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential Effects on Safety	Cabin Owners	An important issue to me is safety. Safety for cabin owners using Mills Lake access road. No escorts of signage for heavy machinery. No safety officer on site. An important issue to me is that Duncread is being used and abused and I am concerned about safety with regards to speed and the number of trucks using the road.	Potential public health and safety issues are assessed throughout Chapter 25. This includes analysis and mitigation related to each of the issues raised, including road and rail traffic, presence and use of machinery, etc. Safety is a number one concern for Alderon, and all employees, contractors (including truck operators) are required to comply with Alderon's Health and Safety Policy and procedures. Potential effects and mitigation related to Other Land and Resource Users are assessed in Chapter 23. Following EA approval, a Blasting Plan will be developed and implemented in compliance with all applicable laws, regulations and industry best practices, and with consideration of safety, environmental and social issues, as identified through the EA. See Section 2.6.2.
	Fermont	What will be the safety perimeter around the pit to ensure people safety?	
	Wabush / Fermont / Lab City	Concerns about safety include child safety due to increased road and rail traffic, elderly people during construction.	
	Fermont	At the Mount Wright Arcelor Mittal mine, there is a required evacuation of all personnel for a 1,000 metre area when blasting occurs. There may be issues associated with communication regarding blasting to ensure no one is in the area.	
Human Health	Le mouvement citoyen de Fermont	Is the well-being of the people of Fermont taken into consideration? Potential impacts from the Kami project on human health. There are currently a number of human health issues as a result of mining in Labrador City. Blood filtration is required by many in Labrador City as a result of high concentrations of iron. Will Alderon be engaged in the future to treat people with health issues?	The community of Fermont is considered within the study area (LSA) that has been established for the Health and Community Health VEC and its effects assessment. See Section 25.2. The potential for Project related emissions to interact with and affect the health of humans has been assessed in Chapter 25, and through the associated HHRA. This includes the potential for issues related to iron concentrations in humans. Alderon's commitments to mitigation are also outlined in Section 25.6.
	Fermont	Possible risks associated with the Project including health risks (increase in levels of iron in the blood, requiring blood filtration)	
	Lab West Status of Women	The main issues included drug use (drug testing should be done when new hire or accidents), and domestic violence and sexual abuse. They did a study on impact of mining on women's health, which is available on Mining Watch, and they found that mining had no major effect on women's health. IOC developed a code of conduct to avoid some issues associated with increased presence of men in the community.	
Potential on Quality of Life	Fermont	Will measures be taken to minimize the impacts on everyday life (e.g. dust)?	Potential effects and mitigation related to dust issues are assessed in Chapter 14 and elsewhere. This includes commitments to various dust suppression and management measures. The potential implications of the Project for housing and other services and infrastructure in Labrador and Québec are assessed in Chapter 24 (Community Services and Infrastructure). The Project is not expected to have an effect on community infrastructure and housing in Matimekush - Lac John. Alderon will provide employee assistance and support programs for its workforce, as described in Section 25.6.2.
	Matimekush - Lac John	Deterioration of community infrastructure and housing in Matimekush - Lac John is also having a negative impact on quality of life.	
		Drug treatment program is needed to support potential workers.	

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential on Quality of Life (continued)	Wabush	Concern of location of transmission line (magnetic field, noise) and health issues for those who live in one mile proximity.	The potential for Project related emissions to interact with and affect the health of humans has been assessed in Chapter 25, and through the associated HHRA. The Project power requirements and the manner in which they will be addressed (options) are described in Section 2.5.6, including responsibility for permitting and constructing any new transmission line(s). The design and construction of the transmission line will be in compliance with all applicable regulatory standards. Key considerations in the design and planning of the transmission line are described in Section 2.5.6.
		Concern of social impacts for fly in-fly out operations including sexual harassment of women	Identifying and avoiding any such issues has been a key part of Project planning. These and other social / community health issues are assessed within the Community Health aspect of Chapter 25, including associated mitigation measures to avoid or reduce any such effects. This includes engaging with government agencies and municipalities to establish a Project accommodation strategy and implementing other measures such as work rotations and transportation of non-resident workers.
	Wabush / Fermont	What will be the human health impacts in Fermont resulting from location of the waste pile. Main concern is the impact to quality of life. What will be the impacts from toxic plumes associated with blasting, and contamination of the water supply? In other mining projects, seeding was done on waste rocks. Levels of iron in blood are high in the population. Their blood must be filtered.	The potential for Project related emissions to interact with and affect the health of humans has been assessed in Chapter 25, and through the associated HHRA. Visual aesthetics issues (including viewshed modeling) is addressed in detail in Chapter 23 of the EIS. Refer to Section 23.6.4. The original location of the waste rock disposal facility was changed following consultation and concerns raised by the residents of Fermont. Re-vegetation, progressive rehabilitation, and other measures will also be implemented.
	Lab City	It has been hard to preserve the quality of life, services and infrastructure in the community and we hope it is not affected by the Kami Project. Domestic violence and drug abuse.	These and other social/community health issues are assessed within the Community Health aspect of Chapter 25, including associated mitigation measures to avoid or reduce any such effects. The potential implications of the Project for housing and other services and infrastructure in Labrador and Québec are assessed in Section 24.6.
	Fermont	Worried about the effects of blasting and associated noise on the community. Community members can hear / feel blasting from other mines (Arcelor Mittal mine, IOC) and the Rose Pit is much closer. How could it be possible not to be affected by your mine?	A Blasting Plan will be developed and implemented. See Section 2.6.2. Detailed modeling and analysis of the noise and vibration associated with Project construction and operations is provided in Chapter 14.
	CIM Conference	You're mining in Labrador, but most of the negative impacts are going to be on the Fermont side, mainly for dust, noise and visual impact from the waste stockpile. Are the requirements for dust, noise, etc... different in NL than in Québec?	The community of Fermont is considered within the study area (LSA) that has been established for this VEC and its effects assessment. See Section 25.2. Detailed modeling and analysis of the dust, noise and visual issues associated with Project construction and operations is provided in Chapters 14 and 23, including (where relevant) an evaluation of these effects against existing regulations and standards.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Potential on Quality of Life (continued)	Labrador City / Wabush / Lab City	Concern that dust will affect the quality of life, and use of recreation areas. Cabin owners particularly concerned with this issue. Suggestion to relocate tailings to south.	Detailed modeling and analysis of the dust, noise and visual issues associated with Project construction and operations is provided in Chapters 14 and 23, including (where relevant) an evaluation of these effects against existing regulations and standards. The proposed TMF is located west of Riordan Lake in the eastern portion of the Project area. See Figure 2.5 in Section 2.5 for an overall site plan. Key considerations in the design and planning of the TMF are described in Section 2.5.4 and 2.6.2. Various alternatives were identified and evaluated based on technical, economic and environmental factors, as described in Section 2.8.
	Cabin Owners	Cabin owners along the east side of the property are complaining about low level helicopter flying. Concern that there are too many helicopters and associated noise impacts, including early morning flyovers of cabin properties. Sling load loss from helicopter in area of a cabin (remote location). If I can hear / see / smell the project am I affected and how will I be treated?	Detailed modeling and analysis of the dust, noise and visual issues associated with Project construction and operations is provided in Chapter 14 and elsewhere in this EIS, including the potential implications of these for land and resource use in the area (Chapter 23).
		Requesting that the company take the same environmental and ethical activities towards all municipalities surrounding the project.	The communities of Wabush, Labrador City and Fermont are each included within the study area (LSA) that has been established for this VEC and its effects assessment. See Section 25.2.
	Innu Nation	Suggested that Alderon should consider such a program where all community members over the age of 60 are provided with a monthly allowance of 600\$. A similar program for the Voisey's Bay Project has been very helpful for the community.	Alderon will adhere to the provisions included in any benefits agreement signed in relation to the Project. Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1.
		When we choose to live in Fermont, it is the tranquility and nature surrounding us that make us stay here. It is unfortunate that economic development is done to the disadvantage of the population living on the territory.	The community of Fermont is considered within the study area (LSA) that has been established for this VEC and its effects assessment. See Section 25.2.
		Concerned about potential environmental and socio-economic effects in Fermont, such as recreational activities in Fermont, air quality, noise and quality of life.	

Table B.14
Issues Raised by Aboriginal Groups and Stakeholders – Economy, Employment and Business

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Aboriginal Employment and Business Opportunities	Innu Nation	Alderon should organize a site tour for elders and a few students from local schools to promote employment.	Alderon is committed to building mutually beneficial and respectful relationships with all Aboriginal groups. Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1.
		Do not like when agreements are in place and people forget about implementation. For example, training was not done for Voisey's Bay as detailed in the agreements. Contracts were only awarded to big companies and not evenly shared with smaller companies.	Alderon is committed to building mutually beneficial and respectful relationships with all Aboriginal groups. Alderon's current Aboriginal engagement processes are described in Chapter 10, and its Aboriginal Relations Policy is outlined in Section 1.1.1. The Project Benefits Plan, Diversity Plan and any Benefits Agreements will address these issues. Alderon is currently negotiating a benefits agreement with Innu Nation. Additional information is available in Chapter 26.
		Request for breakdown of employment and business opportunities for the winter 2012 drilling program.	Alderon provided Innu Nation with this information in November 2011 (Section 10.3).
		Request for environmental monitors on the Project.	A Project-specific EPP will be developed prior to start of the construction phase. Alderon will have an on-site Environmental Monitor whose duties will include inspection of worksites and activities for conformance with the EPP, application of mitigation measures required by design, and compliance with government regulations and permits. See Chapter 8 for more information
	Innu of Matimekush-Lac John	A drug treatment program is needed to support potential workers.	Alderon will provide employee assistance and support programs for its workforce, as described in Section 25.6.2.
	NNK	Want to be kept informed of business and contracting opportunities. Interested in economic opportunities, and have a mining exploration training group and an environmental assessment training group. Have also started vocational training for trades, and by the construction phase should have people in training. Have a waste management company and could pick up the waste produced by mine dispose of it (e.g. tires). Also looking to open a contaminated soil treatment centre in Schefferville, which would be closer and cheaper than the current one in Baie Comeau.	Alderon will develop a Project Benefits Plan and Diversity Plan that includes a wide range of effects management mechanisms and initiatives designed to enhance the benefits to the Province of Newfoundland and Labrador, and especially Labrador and Economic Zone 2, and to women, Aboriginal people and persons with disabilities resident in the Province. Additional information is found in Section 26.6.
	Innu of Uashat mak Mani-Utenam	Has agreements with many partners and want members of the community to benefit from these projects. Also have many companies in the community and want them to benefit from projects.	
	NCC	Are there opportunities available for NCC to get involved in baseline study work? Interested in business opportunities associated with the Project, for example they could potentially support drilling activities.	
	Innu Business Development Centre	Inquiry about employment opportunities for two Aboriginal community members who recently completed their online drilling training programs.	
	NNK	What benefits will the Naskapi receive from this Project?	

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Apprenticeship and Training	College of the North Atlantic	Wants to advance the Aboriginal file and provide training opportunities.	Meetings have been held with CNA and other training institutions to discuss Project training requirements. Alderon is committed to the encouragement and assistance of residents of the Province, and in particular of Labrador, to receive the education and training necessary to maximize their opportunities for employment on and related to the Project. Alderon will develop a Project Benefits Plan and Diversity Plan that includes a wide range of effects management mechanisms and initiatives designed to enhance the benefits to the Province of Newfoundland and Labrador, and especially Labrador and Economic Zone 2. This is discussed in Section 26.6.1.2 and Chapter 24.
	Labrador City	Alderon should actively participate in journeyman / apprenticeship programs.	
	Hyron Regional Economic Development Board	Apprenticeship and training: there should be industry-led initiatives. Industry needs to be involved to solve these issues.	
	Provincial Advisory Council on the Status of Women (PACSW)	It is important to set targets. The numbers presented by Alderon are great at this stage because it may help women decide in which line of work they can train to get employment in the Province. Issue with women in trades, apprenticeships. There is also an issue with women in technology programs where there are no apprenticeships, it is hard to find work. Need to communicate with industry.	
	College of the North Atlantic	CNA would like to know Alderon's diversity targets. 1:4 ratio of apprentices for journeypersons. Scarce journeypersons and challenge to grow apprentices to journeypersons. IOC and Hebron have peak employment at similar point in time as Alderon so it will be a challenge for the Province to have local workforce. Alderon should start recruitment and training of workers by Fall 2012. Should meet again to continue discussion.	
	Innu Nation	Alderon could contribute in the community by providing training opportunities. Suggested that a mentorship / training program in place for environmental monitors. There was a Guardian program in Innu Nation in the past, that was very useful in training people as it is not within the regular school system.	
	Lab West Status of Women	Main issues include apprentices.	
	Innu Nation	Alderon should organize a site tour in the new year for Innu Nation elders and a few students from local schools to promote employment. Also suggested that Alderon provide scholarships for students.	
Availability of Local Workers	Labrador City / Wabush / Fermont	How many people will be needed for the mine? How many permanent workers will there be and what is the plan to attract workers? Will preference be given to local workers? Will workers from Québec be recruited? Do you need any surveyors?	Alderon will develop a Project Benefits Plan and Diversity Plan that includes a wide range of effects management mechanisms and initiatives designed to enhance the benefits to the Province of Newfoundland and Labrador, and especially Labrador and Economic Zone 2, and to women, Aboriginal people and persons with disabilities resident in the Province. Additional information is found in Section 26.6.
	Labrador City	Complaints from trades people who cannot obtain employment from local companies. Resentment of workers brought in for jobs that can be done by local population. How many permanent workers will there be and how will you get them?	Alderon will focus on increasing opportunities for residents of western Labrador, Labrador as a whole, and the rest of the Province. Employment-related and business-related actions include advertising opportunities locally through print media, websites and Project website and working with Labrador stakeholders to identify how best to involve Labrador businesses in the Project. Additional information is found in Section 26.6.

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS
Availability of Local Workers (continued)	CIM Conference	Are you going to use local workers for operations or go FIFO?	Alderon is engaging with government agencies and municipalities to establish a Project accommodation strategy. Alderon will consider employing a Fly-in / Fly-out workforce during the construction phase of the Project. During operations and maintenance, Alderon aims to hire a residential workforce. Additional information is found in Sections 24.5, 24.6, 26.5 and 26.6.
	Labrador City	Will Alderon have administration and human resources in Lab West or in Montreal?	Alderon will have administration and human resources staff in western Labrador. A list of occupations by NOC code is found in Chapter 2.
	Wabush	When will Alderon be hiring someone local for community relations?	Alderon will focus on increasing opportunities for residents of western Labrador, Labrador as a whole, and the rest of the Province. Employment-related actions include advertising opportunities locally through print media, websites and Project website and working with Labrador stakeholders to identify how best to involve Labrador residents in the Project. Additional information is found in Section 26.6.
	Provincial Advisory Council on the Status of Women (PACSW)	IOC and Hebron have peak employment at similar point in time as Alderon so it will be a challenge for the Province to have local workforce. Alderon should start recruitment and training of workers by Fall 2012. Should meet again to continue discussion.	Alderon will work with the provincial Skills Task Force and other industry and professional groups, trades unions, training institutions and other mining companies to address current and future labour shortages. Alderon will also work with these groups to facilitate the delivery of training to Labradorians and Newfoundlanders, including members of the designated groups. Additional information is available in Section 26.6.
Business Access	Newfoundland and Labrador Organization of Women Entrepreneurs	Alderon should educate business owners through supplier development sessions to ensure development of local suppliers. Develop business access strategy, especially for women-owned businesses. They mentioned that women in business could have a great positive community impact. Supplier diversity and set targets for women owned businesses.	Alderon will develop a Project Benefits Plan and Diversity Plan that includes a wide range of effects management mechanisms and initiatives designed to enhance the benefits to the Province of Newfoundland and Labrador, and especially Labrador and Economic Zone 2, and to women, Aboriginal people and persons with disabilities resident in the Province. Additional information is available in Section 26.6.
Diversity in the Workplace	Fermont	Concern that job opportunities will only be for Anglophones. Can equality program also include opportunities for female Francophones?	
	Lab West Status of Women	The main issues include women in trades, and adapting to women in the workplace and having policies for respectful workplace.	
	College of North Atlantic	What are Alderon's diversity targets in the workplace?	
	Provincial Advisory Council on the Status of Women (PACSW)	Diversity in the workplace is an important issue	
	NLOWE	Alderon should educate business owners through supplier development sessions to ensure development of local suppliers. Develop business access strategy, especially for women-owned businesses. Women in business could have a great positive community impact. Supplier diversity and set targets for women owned businesses.	

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS	
Financial Benefit for Municipality	Wabush	Comment that Bloom Lake project has not lived up to commitments in Lab West.	The follow-up and monitoring policies and practices for all Project phases will be as specified in the Benefits and Diversity Plan. They provide a description of Alderon’s process for monitoring and reporting benefits and diversity performance, including success in meeting quantitative and other targets, based on its own performance and that of its contractors and sub-contractors. Additional information is found in Sections 26.6 and 26.11.	
		Work with stakeholders to give something back to the community.	Alderon is committed to working with community stakeholders throughout the EA and the life of the Project to maximize benefits for the community. The Benefits and Diversity Plan will outline Alderon’s commitment to optimize local benefits. Additional information is found in Section 26.6, as well as in Chapter 24: Community Services and Infrastructure.	
		Do not want to pit ourselves against Labrador City or others, but if we (Wabush) are to be impacted more, we expect more of the benefits.	The Project Benefits and Diversity Plan will outline Alderon’s commitment to working with local business. Alderon will hold information sessions for suppliers, packaging bids so local companies are contenders. More information is found in Section 26.6.	
Potential Effects on Local Businesses	CIM Conference	Many indications of interest by regional suppliers and contractors. In this regards, I believe we should hold information forums in St. John’s and Sept-Îles when our contracting strategy is firmed up.	The Project Benefits Plan will outline Alderon’s commitment to working with local business. Alderon will hold information sessions for suppliers, packaging bids so local companies are contenders. More information is found in Section 26.6.	
	Sept-Îles	Involvement of the local communities and businesses in the procurement process for the construction and operation of the mine. State the company’s intentions concerning local procurement.		
	Fermont	Commercial camp owner on Lake Daviault is concerned about dust, visual, noise, money invested on developing site.		The potential Project effects on cabin use are included in the assessment of the Project on Other Use of Lands and Resources. Alderon has been engaging with cabin owners in the Project area and has developed a strategy to mitigate adverse effects on cabin owners. Alderon will continue its engagement with cabin owners to determine appropriate mitigation for individual cabin owners, as applicable. See Sections 23.5.2.1 and 23.6.3.
		What will be the economic spin-offs for Fermont? Will it be Fly-in / Fly-out? Will you build houses?		The effects of the Project on Economy, Employment and Business in Fermont are assessed in Chapter 26.. Alderon will consider employing a fly-in/fly-out workforce during the construction phase of the Project. During operations and maintenance, Alderon aims to hire a residential workforce. Additional information is found in Section 26.6.
Wabush	Owners of the Duley Lake park will probably not want the Project to impact their business	Potential effects on Duley Lake Provincial Park from the Project have been assessed and mitigation measures identified. More details about the results of this assessment are provided in Sections 23.6 and 24.6.		

Issue	Community	Summary of comments raised during consultation and engagement activities	Response / Location in EIS	
Potential Effects on Local Economy	Cabin Owners	An important issue is the impact on the local economy. Please use local people no "fly in, fly out" stuff.	Alderon will consider employing a fly-in/fly-out workforce during the construction phase of the Project. During operations and maintenance, Alderon aims to hire a residential workforce.	
	Wabush	Is Alderon going to build a new town site or leave the requirement for 600-700 employees up to the economy to provide - local contractors, etc.?	Alderon will develop a Project Benefits Plan and Diversity Plan that includes a wide range of effects management mechanisms and initiatives designed to enhance the benefits to the Province of Newfoundland and Labrador, and especially Labrador and Economic Zone 2, and to women, Aboriginal people and persons with disabilities resident in the Province. Additional information is found in Section 26.6.	
	Labrador City	Will Alderon be hiring locals as a priority?		
	Labrador City	Will Alderon be promoting that workers live in Lab West?		
	Sept-Îles	At the end of the predicted mine life, what are you going to do with your employees?	The work force will be kept informed of Project plans and, as with any other project, will be downsized as the Project plans warrant.	
	Wabush	Concern about economic impacts on cities.	An assessment of the economic effects of the Project on Labrador City, Wabush and Fermont is presented in Chapter 26.	
	Fermont		Concern about economic impacts to local camp sites, cabins and parks.	The potential Project effects on cabin use, and recreational sites are included in the EIS as part of the assessment of the effects on Other Use of Lands and Resources. Economic effects of the Project on the tourism industry are also assessed. Alderon has been engaging with cabin owners in the Project area and has developed a strategy to mitigate adverse effects on cabin owners. Alderon will continue its engagement with cabin owners to determine appropriate mitigation for individual cabin owners, as applicable. See Section 23.5.2 and 23.6 for additional information.
			When we choose to live in Fermont, it is the tranquility and nature surrounding us that make us stay here. It is unfortunate that economic development is done to the disadvantage of the population living on the territory. Concerned that Alderon is presenting the project as a positive for the community.	The purpose of the EA process is to identify mitigation measures to avoid or reduce environmental issues and effects. These are described throughout this EIS, and summarized in Chapter 27. Alderon has presented information about the Project and potential effects to the community, and responded to public concerns and questions throughout the EA process, and will continue to do so throughout the life of the Project. Information about Alderon's consultation and engagement activities completed to date are included in Chapter 10.
	Le mouvement citoyen de Fermont	What impact will the mine have on tourism given the importance to the local economy?	Potential effects of the Project on the local economy, including the tourism sector are assessed and mitigation identified in Section 26.6.	



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